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RECORDS
OF
ANCIENT RACES.

McADAMS.



Comp^s of the author S. W. Williams
Wm H Adams



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3.

RECORDS

—OF—

ANCIENT RACES

—IN THE—

MISSISSIPPI VALLEY;

BEING AN ACCOUNT OF SOME OF THE PICTOGRAPHS, SCULPTURED HIEROGLYPHS, SYMBOLIC DEVICES, EMBLEMS AND TRADITIONS OF THE PREHISTORIC RACES OF AMERICA, WITH SOME SUGGESTIONS AS TO THEIR ORIGIN.

With cuts and views illustrating over three hundred objects and symbolic devices.

By WM. McADAMS,

Author of "The Ancient Mounds of Illinois," "Antiquities of Cahokia," Etc.; Fellow of the American Association for the Advancement of Science; Member of St. Louis Academy of Science; President of Illinois State Natural History Society.

ST. LOUIS:
C. R. BARNS PUBLISHING CO.
1887.

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DEDICATION.



I

AFFECTIONATELY
DEDICATE THIS VOLUME
TO TWO LADS, MY SONS, WHO
STILL ABIDE WITH ME, AND TO
WHOSE PLEASANT COMPANY I AM
INDEBTED FOR MANY HAPPY DAYS OF
EXPLORATION IN THE FIELDS AND FORESTS
ON THE BANKS OF OUR LOVED MISSISSIPPI RIVER.

WM. McADAMS.



THE AUTHOR

HIS  MARK.

PREFACE.

A portion of the facts and suggestions embodied in this work were included in a paper read, under the title of "Ancient Pictographs on the Banks of the Mississippi," before the American Association for the Advancement of Science, at the Ann Arbor meeting two years ago. The illustrations of the pictographs, being shown on canvas, attracted so much interest that we at once saw that the value of the work when printed would largely depend on the illustrations. In having these cuts made, and arranging them in the text, the subject seemed to demand a larger and more complete discussion; showing, not only the pictographs and carvings on the rocks, but similar devices on the mound pottery and other objects, among which are the curious gorgets of shell bearing engraved representations of spiders with the symbol of the cross on their backs. With the exception of a few of the fine engravings used by permission from Mr. Conant's work, and a few cuts of emblematic mounds, by permission of the editor of the *American Antiquarian*, the most of these illustrations are new, and made from objects either in my own collection or the collections of friends.

We believe these pictographs have an important bearing on the study of our archæology, and may aid in throwing some light on the origin of the races that have been inhabitants of this continent. Quite probably our Mound-Builders left no written history; but that fragments exist here and there that exhibit rude attempts to record something, we believe we will show to the reader of this little book. Our object is not to explain these

devices, because we cannot; but, if possible, to put them in the way of some person who may be able to trace their meaning. At the very least, they will be preserved and be available for the student in years to come.

As to the story of the Piasa, we have endeavored to exhaust the local history of that remarkable pictograph, not so much for scientific purposes as to try and enlist the interest of the general public. In fact we have attempted to write this book for the public, knowing that many are interested in archæological matters who have no time for investigations and little time to read. To these we trust our attempt at succinctness will be welcome. In condensing the matter we not only evade a long and prosy story, but place the price of the book within the reach of all.

The chapters upon the cruciform symbols from our ancient mounds will contain some things new to our archæologists, whom we have left at liberty to draw their own conclusions therefrom.

On the whole, although the subject-matter has cost us many years of labor and study, if we have interested the reader and filled ever so small a space that was empty, we are satisfied.

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CHAPTER I.

THE PROBABILITY THAT THE MOUND-BUILDERS DID LEAVE SOME RECORDS—FIGURES CARVED AND PAINTED ON THE ROCKS.—PICTURES OF MANITOU S AND MONSTERS AS SEEN BY MARQUETTE AND THE EARLY FRENCH VOYAGERS.—THE PIASA, OR MAN-EATING BIRD.—THE TRADITION OF THE PIASA AMONG THE ILLINOIS INDIANS.—THE DEATH OF THE PIASA.—THE BONE CAVERN WHERE THE PIASA DEVOURS ITS VICTIMS.—GRAPHIC DESCRIPTION OF THE CAVE.

IT IS quite probable that the ancient Mound-Builders and early inhabitants of this country did make attempts to record some of the more important events of their history. Figures, either carved or painted on the rocks, in some cave shelter, or beneath some overhanging cliff, are not uncommon along the banks of the rivers of the Mississippi Valley; but more especially do they abound along the great river where its banks form the boundary between the States of Illinois and Missouri.

Some of these pictographs were seen and noted by the first white explorers, the Jesuits; so that we know that they out-date the advent of the European, and were doubtless made long before the discovery of this continent by Columbus, and may quite possibly be referred to that mysterious race known as the Mound-Builders. At any rate we attempt to place before archæologists these picture-writings, symbolic devices, and emblems, with as much of fact as we are able to gather, mixed with little theory; hoping they may be useful in tracing the, so far, utterly unknown origin of the aboriginal inhabitants of America.

The best known of these old pictographs is that of the Piasa, a remarkable painting that once adorned, or rather was exhibited on, the smooth rocky face of the bluff where is now the city of Alton. This curious old pictograph was first brought to the general notice of the public by John Russel, a whilom professor of Greek and Latin in Shurtleff College, in Upper Alton. He wrote for an eastern magazine the "Tradition of the Piasa," which he claimed was obtained from the Illinois Indians. We give his article in full as written:

"No part of the United States, not even the highlands of the Hudson, can vie, in wild and romantic scenery, with the bluffs of Illinois on the Mississippi, between the mouths of the Missouri and Illinois rivers. On one side of the river, often at the water's edge, a perpen-

dicular wall of rock rises to the height of some hundred feet. Generally on the opposite shore is a level bottom or prairie of several miles in extent, extending to a similar bluff that runs parallel with the river. One of these ranges commences at Alton and extends for many miles along the left bank of the Mississippi. In descending the river to Alton, the traveler will observe, between that town and the mouth of the Illinois, a narrow ravine through which a small stream discharges its waters into the Mississippi. This stream is the Piasa.[1] Its name is Indian, and signifies, in the Illini, '*The bird which devours men.*' Near the mouth of this stream, on the smooth and perpendicular face of the bluff, at an elevation which no human art can reach, is cut the figure of an enormous bird, with its wings extended. The animal which the figure represents was called by the Indians the Piasa. From this is derived the name of the stream.

"The tradition of the Piasa is still current among the tribes of the Upper Mississippi, and those who have inhabited the valley of the Illinois, and is briefly this:

"Many thousand moons before the arrival of the pale faces, when the great Magalonyx and Mastodon, whose bones are now dug up, were still living in the land of green prairies, there existed a bird of such dimensions that he could easily carry off in his talons a full-grown deer. Having obtained a taste for human flesh, from that time he would prey on nothing else. He was artful as he was powerful, and would dart suddenly and unexpectedly upon an Indian, bear him off into one of the caves of the bluff, and devour him. Hundreds of warriors attempted for years to destroy him, but without success. Whole villages were nearly depopulated, and consternation spread through all the tribes of the Illini.

"Such was the state of affairs when Ouatogo[2] the great chief of the Illini, whose fame extended beyond the great lakes, separating himself from the rest of his tribe, fasted in solitude for the space of a whole moon, and prayed to the Great Spirit, the Master of Life, that he would protect his children from the Piasa.

"On the last night of the fast the Great Spirit appeared to Ouatogo in a dream, and directed him to select twenty of his bravest warriors, each armed with a bow and poisoned arrows, and conceal them in a designated spot. Near the place of concealment another

[1] Pronounced Pi-a-saw. [2] Pronounced Wa-to-go.

warrior was to stand in open view, as a victim for the Piasa, which they must shoot the instant he pounced upon his prey.

"When the chief awoke in the morning, he thanked the Great Spirit, and returning to his tribe told them his vision. The warriors were quickly selected and placed in ambush as directed. Ouatogo offered himself as the victim. He was willing to die for his people. Placing himself in open view on the bluffs, he soon saw the Piasa perched on the cliff eying his prey. The chief drew up his manly form to his utmost height, and, planting his feet firmly upon the earth, he began to chant the death-song of an Indian warrior. The moment after, the Piasa arose into the air, and swift as the thunderbolt darted down on his victim. Scarcely had the horrid creature reached his prey before every bow was sprung and every arrow was sent quivering to the feather into his body. The Piasa uttered a fearful scream, that sounded far over the opposite side of the river, and expired. Ouatago was unharmed. Not an arrow, not even the talons of the bird, had touched him. The Master of Life, in admiration of Ouatogo's deed, had held over him an invisible shield.

"There was the wildest rejoicing among the Illini, and the brave chief was carried in triumph to the council house, where it was solemnly agreed that, in memory of the great event in their nation's history, the image of the Piasa should be engraved on the bluff.

"Such is the Indian tradition. Of course I cannot vouch for its truth. This much, however, is certain, that the figure of a huge bird, cut in the solid rock, is still there, and at a height that is perfectly inaccessible. How and for what purpose it was made I leave it for others to determine. Even at this day an Indian never passes the spot in his canoe without firing his gun at the figure of the Piasa. The marks of the balls on the rock are almost innumerable.

"Near the close of March of the present year (1836) I was induced to visit the bluffs below the mouth of Illinois river, above that of the Piasa. My curiosity was principally directed to the examination of a cave, connected with the above tradition as one of those to which the bird had carried his human victims.

"Preceded by an intelligent guide, who carried a spade, I set out on my excursion. The cave was extremely difficult of access, and at one point in our progress I stood at an elevation of one hundred and fifty feet on the perpendicular face of the bluff, with barely

room to sustain one foot. The unbroken wall towered above me, while below was the river.

"After a long and perilous climb we reached the cave, which was about fifty feet above the surface of the river. By the aid of a long pole placed on a projecting rock, and the upper end touching the mouth of the cave, we succeed in entering it. Nothing could be more impressive than the view from the entrance to the cavern. The Mississippi was rolling in silent grandeur beneath us. High over our heads a single cedar tree hung its branches over the cliff, and on one of the dead dry limbs was seated a bald eagle. No other sign of life was near us, a Sabbath stillness rested on the scene. Not a cloud was visible on the heavens; not a breath of air was stirring. The broad Mississippi was before us, calm and smooth as a lake. The landscape presented the same wild aspect it did before it had met the eye of the white man. The roof of the cavern was vaulted, and the top was hardly less than twenty feet high. The shape of the cavern was irregular; but so far as I could judge the bottom would average twenty by thirty feet. The floor of the cavern throughout its whole extent was one mass of human bones. Skulls and other bones were mingled in the utmost confusion. To what depth they extended I was unable to decide; but we dug to the depth of 3 or 4 feet in every part of the cavern, and still we found only bones. The remains of thousands must have been deposited here. How and by whom, and for what purpose, it is impossible to conjecture."

CHAPTER II.

THE LITTLE VALUE OF INDIAN TRADITION IN THE STUDY OF ETHNOLOGY.—EUROPEAN MOTHER GOOSE STORIES.—THE ORIGIN OF OUR MOUND BUILDERS AND INDIANS UNKNOWN.—THE DESCRIPTION, BY THE EARLY FRENCH VOYAGERS, OF THE PIASA.—MENTION MADE OF IT BY DOUAY AND JOUTEL, AND BY ST. COSME IN 1699.—DESCRIPTION BY JONES IN 1838.—A PICTURE OF THE PIASA IN 1825.—A PICTURE OF IT IN 1839, FROM A GERMAN WORK.—ITS DISAPPEARNCE IN 1846.

WE have given the popular tradition of the Piasa, and a description of the bone cavern that was supposed to contain the bones of the monster's victims. The strange story in some form or other has had a most extensive circulation. A few years after the publication of the tradition of the Piasa, we wrote a letter to Russel at Bluffdale. He answered that there was a somewhat similar tradition among the Indians, but he admitted, to use his own words, that the story was "*somewhat illustrated.*" As a mere tradition, the story of the Piasa has little, if any, ethnological significance. Cinderella's slipper and Mother Goose's stories tell no more of the unwritten history of Europeans, than the myths of the Onondagas or Tuscaroras do of the origin of the red man. But it is interesting to know that what we now call the Piasa was in fact not only an old pictograph, but one of a series of ancient pictographs or hieroglyphic records, that were seen, and some of them described, by the first white men that saw our great rivers and looked for the first time upon the beautiful scenery along their shores. That these old records may be preserved, and perhaps be at some future time translated, is the object of this volume, in accomplishing which we shall find recompense in part for many weary but not unpleasant days among the mounds, caves, and relics of the Mound Builders and aborigines.

The first notice we have of the pictograph now known as the Piasa is from that courageous and devoted Jesuit priest, Marquette, made popular by the historian Parkman, in his "Discoveries of the Great West." Joliet and Marquette, in the French missionary stations on the upper lakes, had heard frequently from the Indians, of the Great River or "Father of Waters," which, although discovered by De Soto nearly 200 years before, was still unknown to white men as far north as the Missouri and Illinois. In 1673 these two intrepid voyagers,

with a small party, started out from Green Bay to find the "Great Water." The Indians of the lakes endeavored to deter them from going. The country, they said, was filled with savages and frightful creatures, and in the Great River in a certain part there was a great monster, whose roar could be heard at a great distance, and these terrible creatures swallowed every person who came near them. Traveling on their way, and crossing overland to the Wisconsin, Marquette and his companions descended that stream to its mouth, and entered the Mississippi. Descending it, stopping a while at the mouth of the Illinois, and ascending the bluff just above where is now the town of Grafton, they had their first view of the Missouri. Where these rivers went they did not know, nor what manner of life they contained, nor what inhabitants there were on the banks. One can easily imagine that their eyes and ears were wide open; nor were the frightful stories of monsters forgotten, when these intrepid men again pushed off their frail canoes, keeping close to shore, into that mighty, rushing, unknown river. Parkman tells it from Marquette's diary.[1]

Again they were on their way, drifting down the great river. Leaving the mouth of the Illinois River behind, they glided beneath that line of bluffs on the northern side, cut into fantastic forms by the elements. The great bastions and enormous pillars gave them the idea that they were approaching some giant ruins, and for a long time after, the bluffs about where is now Elsah were marked on the old French maps as "Ruined Castles." Gazing with open eyes as they sped along, Marquette's attention is attracted to a number of singular pictures that are outlined on the bluffs—heathen manitous to this valiant priest.

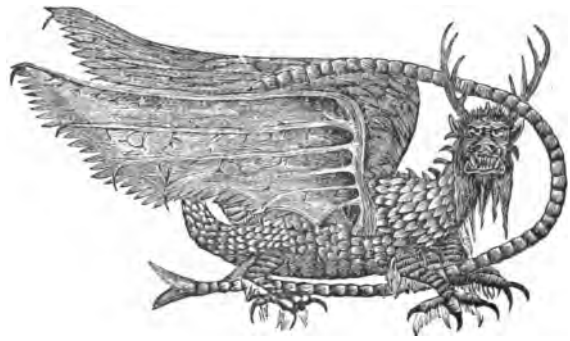
Presently they beheld a sight which reminded them that the Devil was still paramount in the wilderness. On, the flat face of a high rock were painted, in red, black and green, a pair of monsters, each as large as a calf, with horns like a roebuck, red eyes, a beard like a tiger, and a frightful expression of countenance. The face was something like that of a man, the body covered with scales, and the tail so long that it passed entirely around the body, over the head and between the legs, ending like a fish.

He confesses that at first they were frightened; and his imagination, and that of his credulous companions, was so wrought upon by

[1] "Discoveries of the Great West," vol. 3, p. 52.

these unhallowed efforts of Indian art that they continued for a long time to talk of them as they plied their paddles.

A number of explorers who followed a few years later speak of the pictures described by Marquette, as well as of others seen on the bluff. Douay and Joutel make mention of them. The former, bitterly hostile to his Jesuit contemporaries, charges Marquette with exaggeration in his account of them. Joutel could see nothing terrifying in their appearance, but says his Indians made sacrifices to them as he passed. St. Cosme, who saw the pictures in 1699, says that they were even then badly effaced, not so much, apparently, from the elements as from the almost general custom among the Indians of discharging their weapons at the pictures as they passed.



THE PIASA.

We have a little book with the title, "*Illinois and the West*," by A. D. Jones, Boston, 1838. The book contains the tradition of the Piasa (he spells it Piasau) in a somewhat different form from that of Russel, but the same in substance. He says, "After the distribution of fire-arms among the Indians, bullets were substituted for arrows, and even to this day no savage presumes to pass the spot without discharging his rifle and raising his shout of triumph. I visited the spot in June (1838) and examined the image, and the ten thousand bullet marks on the cliff seemed to corroborate the tradition related to me in the neighborhood.

"So lately as the passage of the Sac and Fox delegations down the river on their way to Washington, there was a general discharge of their rifles at the Piasau Bird. On arriving at Alton they went ashore in a body and proceeded to the bluffs, where they held a solemn war council, concluding the whole with a splendid war dance, under the cliff on which was the image, manifesting all the while the most exuberant joy." [1]

Another author says that the picture of the Piasa was visible on

[1] Jones' "Illinois and the West," Chap. 5.

the rocks during 1844 and '45. A few years after this, the face of the bluff was gradually quarried away for the purpose of making lime, and about the time our civil war commenced all traces of the ancient picture had disappeared.

We have in our possession a spirited pen-and-ink sketch, 12 by 15 inches in size, and purporting to represent the ancient painting described by Marquette. On the picture is inscribed the following in ink. "Made by Wm. Dennis, April 3d, 1825." The date is in both letters and figures. On the top of the picture, in large letters, are the two words, "FLYING DRAGON." This picture, which has been kept in the old Gilham family, of Madison County, bears the evidence of its age, and was sketched some years before Russel's story of the Piasa was written. "Dragon" or "Flying Dragon" was the common name for it before Russel's story of the Piasa came out.

The name Piasa or Piasau was certainly in use among the Indians.[1] Col. Paterson, in his History of Black Hawk, says that Black Hawk's father was named Piasau, but does not give the meaning of the word. It is said that Piasau was killed in a battle with the Osages on the Meremac river, in Missouri. Black Hawk, then a young man, fought by his father's side, and it is said carried the dead body of his parent on horseback from the battle ground to their home on the Rock River in Illinois. Black Hawk was a very intelligent Indian, and we have conversed with a number of white people who knew him—one especially, a surgeon in the Black Hawk war. He on more than one occasion approached the chief on the subject of the mounds and the picture of the Piasa, but Black Hawk seemed to have no information on the subject.

It is a little singular that Marquette, in his description of the picture, should always speak of two, as though there were two of the figures, when many later authorities should mention only one. It is singular, too, that all modern writers on the subject, as well as those living who remember to have seen the picture (for there are a number of old citizens who claim to have been familiar with the figure,) should always refer to the creature's wings. Marquette, although he describes it in detail, makes no mention of wings.

One of the most satisfactory pictures of the Piasa we have ever seen is in an old German publication, entitled "The Valley of the Mississippi Illustrated. Eighty illustrations from nature, by H.

1 Patterson's "Black Hawk."

Lewis, from the falls of St. Anthony to the Gulf of Mexico." Published about the year 1839, by Arenz & Co., Dusseldorf, Germany. One of the large full-page plates in this work gives a fine view of the bluff at Alton, with the figure of the Piasa on the face of the rock. It is represented to have been taken on the spot by artists from Germany. We reproduce that part of the bluff (the whole picture being to large for this work) which shows the pictographs.



This picture was taken some three or four years after Russel wrote his story of the Tradition of the Piasa. The account in the German work tells of the tradition, and says the pictograph was growing dim and showed evidence of great age.

We are inclined to believe these German artists faithfully made a sketch of what they saw dimly outlined, being what remained in 1839 of Marquette's famous monsters. In the German picture there is shown, just behind the rather dim outlines of the second face, a ragged crevice, as though of a fracture. Part of the bluff's face might have fallen, and thus nearly destroyed one of the monsters; for in later years writers speak of but one figure. The whole face of the bluff was quarried away in 1846 and '47.

CHAPTER III.

MARQUETTE'S DRAWING OF THE PIASA.—THE CONFOUNDING, BY EARLY WRITERS, OF THE PIASA WITH OTHER PICTOGRAPHS.—LOCAL SKETCHES OF THE PIASA.—PICTURES AND TRADITIONS OF DRAGONS OVER THE WORLD—TRADITIONS OF MONSTERS AMONG THE INDIANS.—THE DACOTAHS' "THUNDER BIRD."—THE MEDICINE ANIMAL OF THE WINNEBAGOES.—CURIOUS PICTOGRAPH ON THE BLUFF ON THE ILLINOIS RIVER.—DRAGON HEADS ON MOUND POTTERY.—THE ENGLISH STORY OF ST. GEORGE AND THE DRAGON.—DRAGONS IN MEXICO AND CENTRAL AMERICA.

PARKMAN says Marquette made a drawing of the monsters, but it was lost. "I have, however," continues he, "a *fac-simile* of a map made a few years later by the order of the Intendant Duchesneau, which is decorated with the portrait of one of them, answering to Marquette's description and probably copied from his drawing."

We have received, through the kindness of Mr. Parkman, a copy of the portrait of which he speaks; but we cannot agree with the historian in believing that it answers to Marquette's description, or refers to the well-known figure that once adorned the bluff at Alton.

It is a fact, though not generally known, that there were several of these old pictographs in the vicinity of Alton; and this may account for some of the early differences in description. Three or four miles above Alton, below the mouth of the stream called Piasa Creek, is a series of these old pictographs, the most prominent of which are the outlines of two huge birds without wings. That these were noted by the early voyagers there is no doubt. We present a sketch of them on another page.

Several years ago we succeeded in getting together a number of the old citizens of Alton, for the purpose of hearing them discuss the location and appearance of the Piasa. Among those present were the Hon. Samuel Blackmaster and Henry G. McPike, the present mayor of the city. The two gentlemen named were especially familiar with the old pictograph, and kindly spent some time in making for me a sketch of the Piasa, which I have now in my possession.

From these various sources we have had our engraving made of the Piasa. It may be objected to by some on the ground that it is

too elaborate for the work of an Indian artist. We also think so. But Marquette, after describing the picture as representing a hideous dragon, combining birds, animals, reptiles, fishes, with the face of a man, goes on to remark: "These monsters were so well painted that the Indians could hardly have designed them. Good painters in France would hardly have done as well." [1]

When it is remembered that Marquette was a priest, with education and no small degree of cultivated intelligence, our interest is increased as we wonder who could have been the author of this remarkable pictograph. It is also a matter of interest to the ethnologist to know that, in common with the nations of the old world, most of the Indian tribes of this country had traditions of dragons and other monsters.

Schoolcraft, who traveled at an early day among the Indians, and saw their primitive customs and heard their traditions, gives us much information of their history and antiquities in his splendid works. [2] He mentions a number of these traditions. He says:

"The Dacotahs believe that thunder is a monstrous bird flying through the air, and the noise we hear is the fluttering of the old and young ones. These birds were large enough to carry off human beings, which the young ones were sometimes foolish enough to do. The Dacotahs also have a tradition that one of these thunder birds was killed, back of Little Crow's village on the Mississippi. It had a face like a man, with a nose like an eagle's bill. Its body was long and slender. Its wings had four joints to each, and were painted with ziz-zag lines to represent lightning. The back of the bird's head was red and rough like a turkey."

We could not fail to observe the resemblance between the description of the Thunder Bird of the Dacotahs and that of the Piasa of the Illinois. Again he speaks of a great "medicine-animal" to which the medicine-men of some tribes were accustomed to apply; seeking to propitiate its powers to assist them in their healing arts. Curious to know their idea of the appearance of this monster, Schoolcraft finally persuaded Little Hill, a chief of the Winnebagoes, and himself a medicine-man, to make him a drawing of the animal, which we reproduce here. This animal, he was told, was seldom seen, and then only by medicine-men. This

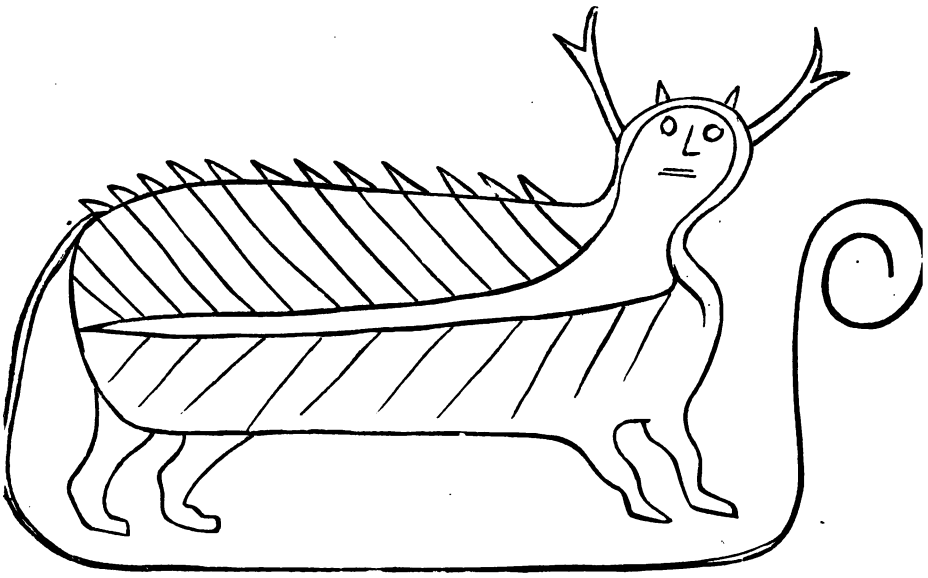
[1] "Discovery and Exploration of the Mississippi." John G. Shea.

[2] Schoolcraft's "Indian Tribes of America."

chief had in his medicine-bag a piece of bone which he claimed was part of the remains of one of these animals. Some small portion filed off from this bone was a potent cure for ailments. [1]

The same author gives other illustrations of these Indian manitous, with serrated backs, representing the scaly bodies of these dragon like-creatures.

Some twenty-five or thirty miles above the mouth of the Illinois river, on the west bank of that stream, high up on the smooth face of an overhanging cliff, is another interesting pictograph, sculptured deeply in the hard rock. It remains to-day probably in



The Winnebago Medicine Animal.

nearly the same condition it was when the French voyagers first descended the river and got their first view of the Mississippi. The animal-like body, with the human head, is carved in the rock in outline. The huge eyes are depressions like saucers, an inch or more in depth, and the outline of the body has been scooped out in the same way; also the mouth.

The figure of the archer, with the drawn bow, however, is painted, or rather stained with a reddish brown pigment, over the sculptured outline of the monster's face. Although difficult of

[1] Schoolcraft's "Indian Tribes of America," vol. 2, page 225.

access, we have approached near enough to this pictograph to examine it. It has the appearance of great age, although protected by its position from the elements. I somehow received the impression that the painted figure of the human form with the bow and arrows might have been made later than the sculpture. The lapse of centuries, however, has had is its effect on the painted portion of the form of the archer, and one has now to seek a favorable light on the bluff to get a good view of the outline.

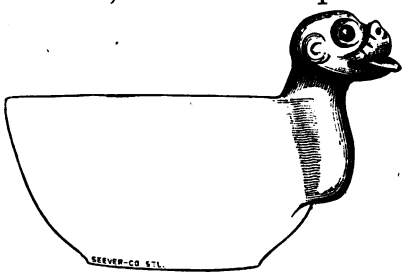


Pictograph on Illinois River.

There was a tradition among the early white settlers, which they seemed to have obtained from the Indians, that the arrow shown in the figure, and which points obliquely toward the foot of the bluff some distance beyond, indicated some buried treasure in that direction. A number of deep excavations in the debris at the foot of the cliff still attest the work of credulous treasure-seekers.

In our collection of pottery from the ancient mounds we have several pieces ornamented with dragon-like devices. We give an illustration of two of these; burial vases, with a most pronounced dragon-head standing up from the rim of the vessel. There is the great mouth with the teeth revealed, and protruding tongue, with fierce eyes, and the general aspect, not only of the Piasa, but of those mythological representations of the dragon so frequently found in Asia. We present a sketch of another. It is all the more interesting since we found with it a magnificent collection of pottery, of more than a hundred pieces, at the base of the great Cahokia mound, in the American Bottom, in Madison County, Ills. This is the largest artificial mound in the United States, and perhaps in the

world, being one-hundred feet in height, and covering with its base sixteen acres of ground. It is the centre of a group of seventy-two others, which surround it, and of which a description will be given farther on in this work. They are situated on a level plain, miles from any natural elevation. For a complete description and survey of them, see "The Antiquities of Cahokia, or Monk's Mound." [1]



From Cahokia Mound.

Upon taking these curious old burial vases from the place where they had rested for ages, it was like exhuming a museum of natural history in ceramics ; for these were the shapes of animals, birds, reptiles, fishes, and almost all animated nature, together with the shapes of the human form. Among them were several vases adorned with the dragon heads.

The tradition of the Piasa has its analogy in the well-known tradition of St. George, the patron saint of England, who was noted for his piety and knightly valor. Traveling in Asia, he came to a city that was besieged by a horrible dragon, that had taken up its abode in a swamp on the outskirts of the city. Each day it appeared to claim for its daily repast an inhabitant, until the number of its victims began to tell fearfully in the depletion of their population. All efforts to destroy the monster had been in vain. Each day the people drew lots to see who should be the next victim. Upon the day of St. George's arrival, the afflicted city was in the utmost consternation, because in casting lots for the next day the king's daughter had drawn the unlucky number. Of course she was beautiful, and when St. George got a glimpse of her it was a bad day for the dragon, for he went to sharpening his sword and spear, as any true-blooded Englishman would, notwithstanding the Encyclopedia Britannica says he was born in Asia Minor. The next morning the valiant-hearted knight, mounted on his war-horse, in company with the maiden, who walked, went out,



From Mound in Missouri.

1 "The Antiquities of Cahokia, or Monk's Mound," by Wm. McAdams.

in the presence of the whole city, toward the swamp. The dragon met them, and there was a terrible conflict, which ended with the death of the monster by a thrust into its vitals from the spear of St. George. Some historians, in depicting the scene, have intimated that during the conflict the girl ran away, and this is the reason why St. George didn't marry her; but this, of course, is not generally believed. Of course there was great rejoicing in that city; and they carried St. George, as the Illini did Ouatogo, in triumph, and had a great Knight Templar banquet.

The pretty and romantic story of St. George has its counterpart among nations in all parts of the world, although some writers go back for its origin to the mythology of the Aryans [1] and give it a solar significance.

In the Buddhists' caves [2] in India are carved and painted great dragons without number, that would fit Marquette's description of the "Piasa," or the Dacotahs' "Thunder Bird." And sometimes, to hideous images of monsters like these, it has been the custom of the nations of the world [3] to offer up even human sacrifice.

That primitive people should have worshiped the sun seems natural enough, and might be accounted for from the fact that this great luminary seemed, on each recurring season, to give by its warming rays new life to the earth, and furnish them with sustenance and warmth, their greatest necessities. The sun seemed to them, and is really, a sort of creative power, that brought within their reach the means of existence. To the savage this was God.

But a puzzling fact to ethnologists is that primitive people so widely separated, even by oceans, whose distant continents and parts of the earth seem to have such wide intervals of connection (especially since their condition gave them such meagre means of knowing one another that isolation would seem complete), should have so many customs in common, observances that were alike, and traditions that were similar.

Central America, in the sculptured walls of the ruins of Yucatan and elsewhere, according to Stevens and other writers, presents many figures of dragons and monsters of that description.

The last *American Antiquarian* gives a fine cut of a veritable

1 "Myths of the Aryans."

2 "Races of Men," Pickering.

3 "The Childhood of Religions."

dragon-head, sculptured on the facade of the old pyramid of Xohicale in Mexico.

Since it is admitted that the primitive inhabitants of this continent are still without an adequate theory regarding their origin, any point germain to the subject is of interest.

CHAPTER IV.

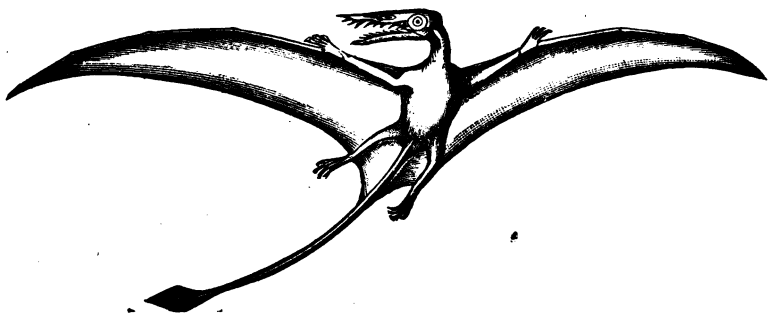
WAS THERE EVER A CREATURE LIKE THE PIASA?—THE GEOLOGICAL AGE OF REPTILES.—THE PTERODACTYL, A FLYING SAURIAN.—THE OLDEST ANIMAL WITH FEATHERS.—THE PICTURES IN THE TEMPLE OF BELUS IN BABYLON.—COMPOUND ANIMALS.—THE DRAGONS OF THE BIBLE.—A DRAGON'S SKULL FROM THE ROCKS OF DAKOTA.—THE PROBABLE ORIGIN OF MYTHIOLOGICAL DRAGONS.

WE have been asked many times: "Was there ever a creature resembling the Piasa, or the Dragon that St. George is accused of killing?"

This is a question to be decided by the paleontologist, and we answer without hesitation in the affirmative. It is well known to all scientists, who have any knowledge of the fossils in the rocks, that there was a time when the principal inhabitants of the earth were reptiles, some of which were not very unlike some of the dragons of mythology and of the traditions of the New World. It was the age of reptiles, who lived mostly in the sea or about the shores. And some of these ancient creatures would make the dragons of our traditions small in comparison. While traditions may be matters of doubt, paleontological specimens are simply matters of fact; for we have the actual bones of the skeleton of the animal. In the paleontological collections at Harvard and Yale colleges, and at the Smithsonian in Washington, one can see the actual skeletons of reptilian monsters of wonderful size and shape. Some of these reptiles we know, from the structure of their skeletons, had the power of flight; and we actually know almost as much of these creatures now as if we had seen them; although in that age there was no mammal in existence, let alone a man to view them. We give a representation of one of these flying reptiles, restored from an almost perfect skeleton now in the British Museum.

These great flying saurians seem to have been quite common here during the Jurassic age; and many specimens of their remains are found in Western Nebraska and about the base of the Rocky Mountains. Some of these creatures of flight had membraneous wings, not very unlike those of the bat. They were among the first of flying creatures; no real birds having as yet come into existence. But few of the reptiles, however, had the power of flight,

and the very great majority of them were huge monsters that lived in the sea and about its shores. All over the world, where the Triassic, Jurassic and cretaceous rocks are seen, their remains are found petrified. In the United States these rocks are seen from New Jersey through the Southern States, and all along the base of the Rocky Mountains. None of the remains are found in Illinois, but they are especially abundant in Nebraska, Colorado, Wyoming and Dakota. Many whole skeletons of these great dragons have been found, thirty, forty, fifty and even a hundred feet in length, and of monstrous proportions; their limbs being of im mense power. Fine collections of these strange animals, together with the remains of the uncouth mammals who appeard after the Reptilian age, in the Tertiary, are taken from the rocks along the base of the Rocky Mountains.



Pterodactyl restored; by Marsh.

The oldest animal provided with feathers [1] has been found by geologists in the lithographic slate of Germany. It is a Jurassic rock, and belongs to the age of reptiles. This first feathered creature was a flying reptile, and seemed to foreshadow the coming of birds, which appeared at a later date. A quite perfect specimen of one of these feathered saurians is preserved in the Berlin Museum. We give an illustration of it. Fourteen long quill feathers diverge from each side of the metacarpal and phalangial bones, and the wings have a general resemblance to those of gallinaceous birds. Its tail is composed of twenty vertebra, each of which supports a pair of long quills. The skeleton is intact on a slab of slate, and the feathers are well preserved. [2] There is also in the British Museum an almost perfect skeleton of the same animal, with the feathers attached.

1 Geology. 2 "Owens"

We have that very fine English work by Thos. Hawkins, illustrating and describing the life of the Reptilian age. That which interested us as much as anything the ponderous volume contains was a quotation on the title-page, from an old writer who lived in Babylon when it was the most magnificent city in the world. It is a most complete description of the many uncouth creatures that peopled the world before the advent of man. Here is the quotation:

"Berosus the Chaldean saith, a time was when the universe was darkness and waters, wherein certain animals of frightful compound forms were generated. There were serpents and other creatures with the mixed forms of one another, of which pictures are kept in the temple of Belus in Babylon." [1]



The first Feathered Animal.

It is known to geologists that the rocks of a portion of Egypt and about the region of Babylon and the hills of Jerusalem, are the same as those of which we have spoken in Nebraska, Wyoming, Dakota and about the base of the Rocky Mountains; and belong to the age of reptiles and the early mammals. It may even be possible that a collection of these remains was brought into Babylon, as intimated by Berosus.

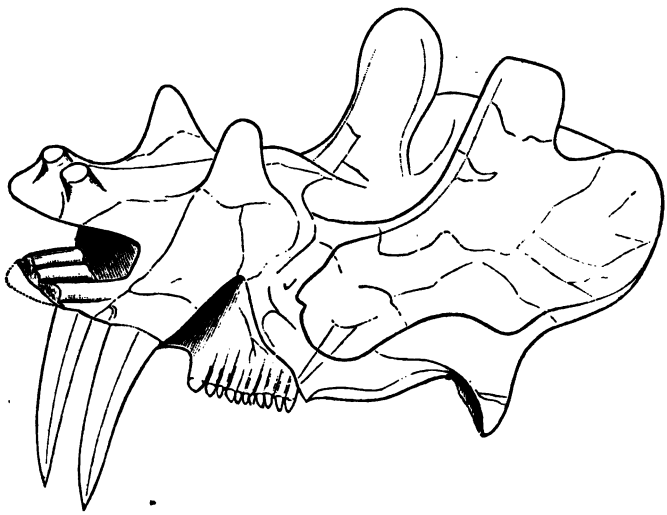
The Bible speaks of dragons; and St. John, in the revelation of his vision, saw a great beast with ten horns come up out of the sea. We have seen taken from a bank in the "Bad Lands" of Dakota the huge petrified skull of the Uintatherium that rivalled in the number of its horns the beast of the Jewish revelator, and doubtless would have been quite as satisfactory in regard to size and hideousness. At the Smithsonian at Washington, as well as in the collections at Yale and Harvard and other places,

2 "Book of Great Sea Dragons." Hawkins.

the student can at any time examine hundreds of these creatures.

Some paleontologists have expressed belief that it might have been possible that some of these creatures, especially those with power of flight, might have survived until after the advent of man; but it is more probable that it is from the petrified remains that mankind received the idea of the Dragon, which has pervaded the literature, not only of Asia, but of the whole world, and is even found among the pictographs of the Mound-Builders of America.

Having done with the natural history of dragons, we go back to our pictographs.



Skull of tne Uintatherium.

CHAPTER V.

OTHER PICTOGRAPHS ON THE BLUFF ABOVE ALTON.—THEIR APPEARANCE AND DESCRIPTION.—A HUMAN FORM DEPICTED IN ADORATION OF THE SUN.—WERE THE MOUND-BUILDERS WORSHIPPERS OF THE SUN.—TWO HUGE BIRDS IN COMBAT.—FIGURES OF THE SUN, MOON AND OTHER PLANETS.—THE AGE OF THE PICTOGRAPHS.—MOUNDS ON THE BLUFF ABOVE THEM.—THE CONTENTS OF THE MOUNDS. THE BEAUTIFUL BREAST-PLATE AND GORGET OF SHELL.

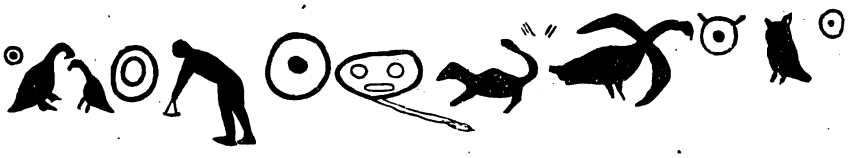
WE have intimated, in a discussion of the Piasa, that there were other pictographs in the vicinity that had possibly been confused with the great picture of the monsters on the bluff at Alton. Some three or four miles above the city, high up beneath the overhanging cliff, which forms a sort of cave shelter, on the smooth face of a thick ledge of rock, is a series of paintings, twelve in number. They are painted or rather stained in the rock, with a reddish-brown pigment that seems to defy the tooth of time. It may be said, however, that their position is so sheltered that they remain almost perfectly dry. We made sketches of them some thirty years ago; and on a recent visit could see that they had changed but little, although their appearance denotes great age. They doubtless have been there for centuries.

These pictographs are situated on the cliff more than a hundred feet above the river. A protruding ledge, which is easily reached from a hollow in the bluff, leads to the cavernous place in the rock; and while one is safe from rain or storms, he has a splendid view, not only of the Mississippi, which flows, a mile in width, in majesty below, but of the cultivated bottom lands on the opposite shore, and beyond, the turbid waters of the Missouri,—one of the most magnificent scenes of this romantic locality.

On the next page we give an illustration of the pictographs.

Half the figures of the group are circles of various kinds, probably each having a different meaning. On the left are two large birds, apparently having a combat, in which the larger bird seems about to be victorious. To the right of the birds is a large circle enclosing a globe, and before which is the representation of the human form, with bowed head and inclined body, as if in the act of offering to the great circle something triangular in shape, not very unlike a basket with a handle, which is held in the hand.

Among all the ancient pictographs we have seen, this is the only one where the human form is depicted as if in adoration, perhaps to the sun. For there is little doubt that the Mound-Builders were worshippers of the sun, or of fire, which seemed to them to represent the great luminary. Counting from the left, the eighth figure in the group seems to be intended to represent some carnivorous animal with a long tail, which is turned over its back. This figure, when we first saw the pictographs, some thirty years ago, was missing from the series; a large piece of the face of the ledge having been detached, perhaps during some earthquake years ago, and now lying, face downward, in the debris below. Curious to know what the illustration might be, if any, on the fallen portion of the ledge, we made an excavation for the purpose of seeing the under side, and were rewarded by finding the above figure, a little clearer and brighter than the others. A considerable tree grew upon it, to indicate some lapse of time since the piece left its place in the ledge. It can be seen to-day, just as we left it.



Pictographs on the Bluff above Alton.

The next figure in the series is a large bird, with extended wings, which seem to come from the base of the neck. This curious winged creature seems to be having a combat with a circle or planet with two horns. This is an interesting figure, because it is repeated in other groups, as we shall show; and is quite evidently intended to represent a contest of flying animals over the possession or destruction of a circle or planet.

At some little distance then follows in the series the representation of an owl; the whole ending with a smaller red circle.

This most interesting group of pictographs has the appearance of great age; but, if one will take the trouble to approach near to them, they are clearly discernable, and doubtless will remain so for many years to come.

On the top of the bluff above these pictographs are a number of ancient mounds, not very large ones. Upon excavating in them we found them to contain human remains, in a tolerable state of preservation. The material of which the mound was composed, being

loess, together with the dry and elevated position, was favorable to resist decay. In burial, the bodies had been laid prone on the ground, with limbs extended. Some ornaments from sea-shells, with a few rude bone and stone implements, were all of this nature to be found. Nothing was to be seen that might indicate any connection with the pictographs on the face of the rock below.

We were very careful to preserve the skulls from the mounds. With a single exception they were so smooth and symmetrical, so devoid of prominences, that we judged they might be the crania of women. One, however, was exceedingly strong in delineation of character, with great ridges that formed battlements for his perceptive faculties. One of his arms and three of his ribs had at one time been broken, and healed without the aid of a very efficient surgeon; there was also a scar from an old wound on one of the leg bones. On his breast remains was a pretty gorget, as large as one's outstretched hand, made from a large sea-shell, probably a Busycon. This pretty ornamental badge was neatly made to represent a turtle, but bore no inscription or device of any kind. We have, however, a number of these gorgets, in both shell and copper, that bear devices, and were, perhaps, a sort of symbol in themselves, beside the inscriptions cut upon them.

CHAPTER VI.

SCULPTURED PICTOGRAPHS IN A CAVE IN STE. GENEVIEVE CO., MO.—DESCRIPTION OF THE CAVE.—THE APPEARANCE OF THE CARVINGS.—HUMAN FOOTPRINTS.—FIGHTING BIRDS, CROSS-CIRCLES AND STRANGE DEVICES.—EVIDENCE OF LONG OCCUPANCY OF THE VICINITY.—MOUNDS.—STONE GRAVES.—SALT SPRINGS.—REMAINS OF SALT EVAPORATING-PANS.—PECULIAR BURIAL, WITH HUGE SALT-PANS FOR A COFFIN.

There is another very interesting group of pictographs to be seen in a small cavern on the bank of the Saline River, near where it empties into the Mississippi, in St. Genevieve Co., Mo.[1] The figures are eighteen in number, and are carved or cut in the smooth face of the hard limestone walls, which gradually slope toward the floor, in the centre of which is a deep gutter, through which runs quite a stream of clear spring water, coming from the recesses of the cave beneath the hill and emptying into the Saline.

Being in the vicinity, our attention was called to the curious marks on the walls of this cavern; and we spent several days in their examination. At first we saw only those near the mouth of the opening; but having procured a light and an old broom from a settler in the vicinity, by dint of scrubbing and washing away the dirt and accumulation of ages from the sloping walls, we laid bare this most interesting series of carvings, which we present in the following illustrations.

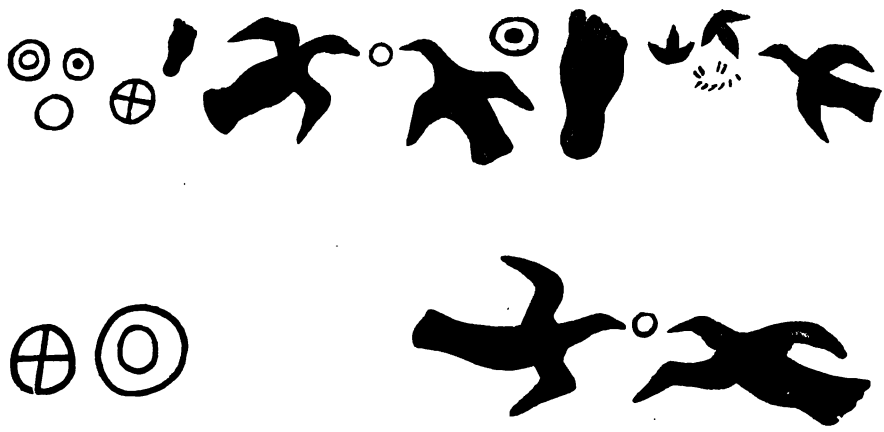
There are two lines of the series, one on each wall of the cave. Those on the left of the illustration are nearest the opening or mouth, and the upper line of figures are on the left wall as one enters the opening; which a person can quite easily do in an erect position, after having once reached the cave through the water that issues forth, forming quite a stream.

The relative position of the figures on the wall is as shown in the cut. In the upper line, below the two bird tracks, there is a figure wanting; it being so obscure that we were unable to make it out correctly. In the lower line there are also some figures wanting between the circle and the birds. The size of the figures may be inferred from the larger representation of the human foot in the

1 See "Footprints of Vanished Races," Conant.

upper line. This measures fourteen inches from the extremity of the great toe to the heel. Across the ball of the foot, just back of the toes, it measures seven inches. The figures are wholly engraved in the rock, the cutting varying from half an inch to an inch and a half in depth. In the case of the human feet, they represent almost precisely the track a person's foot would make in a plastic substance like softened clay or mud. There are the raised interstices between the toes, and the deeper places of the ball of the foot and the heel. The birds and the circles are made in the same way, by cutting them bodily out of the rock.

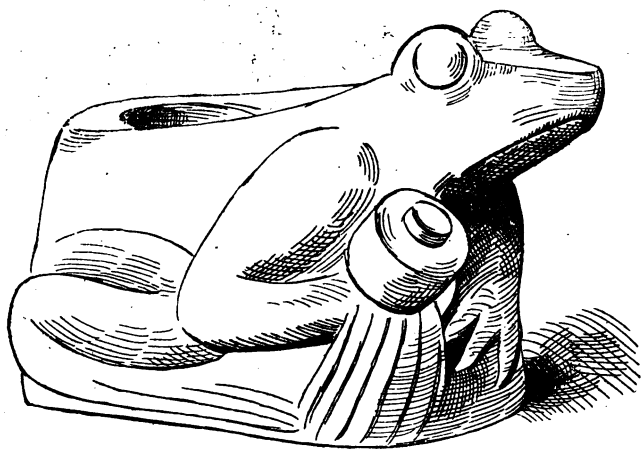
The interesting figure of the apparent combat of birds over a circle is repeated, as the same figure is shown on both sides of the



Pictographs in Cave at Ste. Genevieve.

cave. It will be remembered that somewhat similar figures of combatting birds are shown in the preceding illustration of the pictographs on the bluffs above Alton. Some of the same hieroglyphic circles are also shown. These circular figures are not uncommon among the pictographs of the Mississippi, and are of great interest, more especially the two shown in the preceding illustration, having the cross enclosed. The illustrations of the human footprints, with those of birds and other creatures, are also found in many places; but we shall discuss these farther along in our paper. The representation of the birds, however, as if in combat over a circle or planet, is more rare, and we are not aware that it has been found excepting along the banks of the Mississippi, where it occurs a number of times.

About the region of the Saline, where the cave containing the pictographs described is situated, there is evidence of long occupancy by the Mound-Builders or some of the later tribes of Indians. There are many mounds, and some of them of large size. There are also many of the shallow stone graves, made much more recently. But the greatest attraction of this spot, probably, to all races, since man first roamed over the wilds of the continent, was the singular salt springs. Near the mouth of the Saline there are three springs, nearly a mile apart, from which there wells up a strong saline water, and all about the region are the remains of earthen vessels in which the salt was evaporated. In one of the mounds we were so fortunate as to find two of these curious vessels almost entire. They had been used for the coffin of a child; some loving mother having carefully placed the little body in one vessel and used the other for a cover. They are over three feet across the rim, and perhaps the only perfect ones in the country to-day.



Sphynx Pipe, found by the writer in a Mound on bluff east of Cahokia, [illegible]—See page 46.

CHAPTER VII.

SCULPTURED PICTOGRAPHS IN A CAVE IN GREENE COUNTY, ILLS.—DESCRIPTION OF THE CAVE.—ILLUSTRATION OF THE ROCK WITH THE CARVINGS UPON IT.—THE HUMAN FOOTPRINT WITH SIX TOES.—ACCOUNT OF OTHER SIX-TOED WORKS IN TENNESSEE.—OTHER DEVICES.—THE STONE SEAT.—THE SIZE OF THE MOUND-BUILDERS.—THE CAVE A NATURAL AMPHITHEATRE.—MOUNDS ON THE BLUFF.—OBJECTS FOUND IN THEM.—ACCUMULATION OF ASHES IN A CAVE.—CAVES PLACES OF HABITATION AND PLACES OF RESORT.—CAVE MEN.—WERE THEY CANNIBALS?

ALONG the Illinois river, some twenty-five or thirty miles from its mouth, is another cave, situated in the limestone cliff, in which is another series of carvings, on the face of a large triangular rock, that has fallen from a ledge within the cavern and lies on the floor. The carvings are nearly of the same size as those shown in the preceding illustration. Some of the figures are cut a little deeper in the rock, and are perhaps better preserved, and do not present the appearance of such great age. On the next page is an illustration of the rock with the carvings upon it. The figures are nineteen in number.

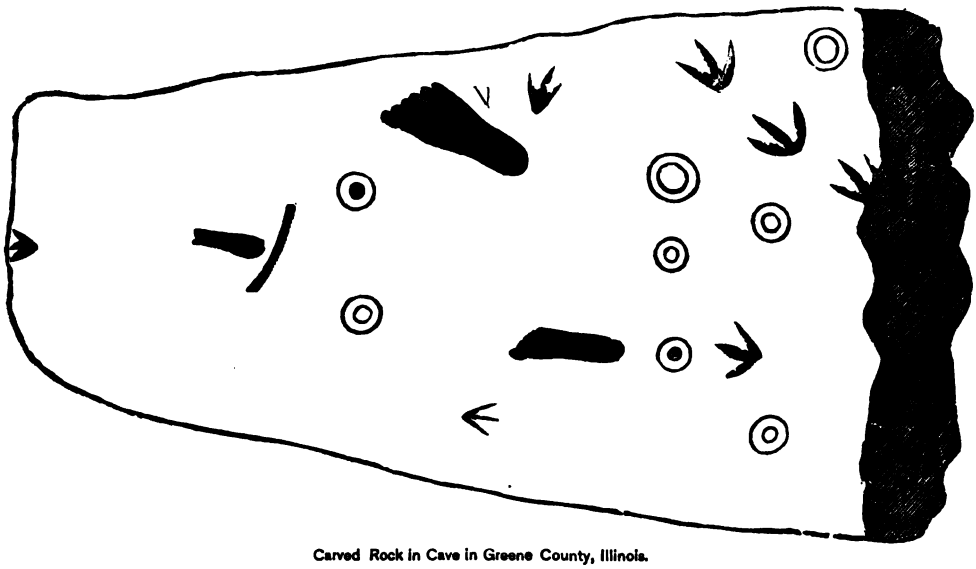
The larger representation of the human foot is singular, from the fact that it has six toes instead of five. Morse's Universal Geography, according to Priest [1] gives an account of a number of tracks,or foot-impressions, found in the rocks in the mountains of Tennessee. Among these were a number of tracks representing human feet, and they uniformly had six toes on each foot. Since it is known that it is not natural for man, or an animal for that matter, to have six toes, this representation is indeed singular. It is the only foot-mark among many we have seen that has six toes. The other human foot represented on the stone in the illustration has the usual number of toes. The circles and bird-tracks also represented are very similar to those in the preceding illustration.

Although all the figures on this rock are cut into the stone, we observed, on making a careful examination of the cave and vicinity, that there was in the mouth of the cave one of the painted circles; and in a cave shelter near, two more of the same kind.

We observed in the cavern that the ledge from which the stone

1 Priest's "American Antiquities."

containing the pictographs had fallen was a few feet above the floor, and, extending around its sides in a circular manner, made a very convenient seat, as in a small amphitheatre with a circular bench. This stone seat is worn almost as smooth as glass; and the seat being too high for the sitters to touch the floor, there is a mark all around where their heels rubbed the ledge below. This mark is smooth and polished like the seat above. With our companions we sat on this seat; and, our heels coming on the smooth line below, we judged that these aborigines had been men of large size. The stone with the pictographs did not bear this mark of smoothness, and probably lay where it was found before the carving was done.



Carved Rock in Cave in Greene County, Illinois.

With the dim light of a miner's lamp held high above our heads, to aid the feeble rays of sunlight from the entrance behind us, we gazed around on this old subterranean council-chamber, and would fain imagine we saw the seat filled with the forms of a strange people, deliberating on the questions of their time, of which we know so little.

Following a little-used pathway that wound about the point of the bluff, we finally found ourselves on top of the cliff, that extended out as a ridge into the level plateau beyond. Here we found a number of ancient mounds, which we explored; but our

reward was but little of any historical value, except a few more remains of the Mound-Builders' crania, more ornaments of sea-shells, a rude stone pipe, and a few implements of stone;—nothing to reveal whether they had belonged to the occupants of the strange cavern below.

In a small cave near, we exhumed from the floor a number of implements, which we have described in a previous work.[1] The whole floor of the cavern was covered with an accumulation of ashes, in some places to the depth of several feet, going to show that the place had been the abode of some people for long periods. In the ashes were accumulations of the kitchen refuse, such as pieces of broken crockery, bones of animals, birds, fishes, many clam-shells, and the bones of turtles; and mingled with the refuse were stone and bone implements. ornaments and other belongings of a rude description. I received the impression, from a study of these old cavernous places of habitation and resort, that quite doubtless the locality had been inhabited sucessively, in sequence of time, by tribes with different customs, and greater or less degrees of cultivation in their rude arts. For some certainly were the veriest savages; else they practiced the lowest customs through dire extremity. This I judged from the fact that among the numerous bones of animals taken from the accumulations in this cavern were also a few human bones; and these, like all of those of the animals, had been broken lengthwise, for the purpose, I judged, of obtaining the marrow, of which substance all savages seem to be very fond. But that they should break human bones for the purpose of eating the marrow would show that some of our ancient people were open to the charge of cannibalism. They probably preceded the makers of the pictographs now under discussion.

1 "Ancient Mounds of Illinois," McAdams.

CHAPTER VIII.

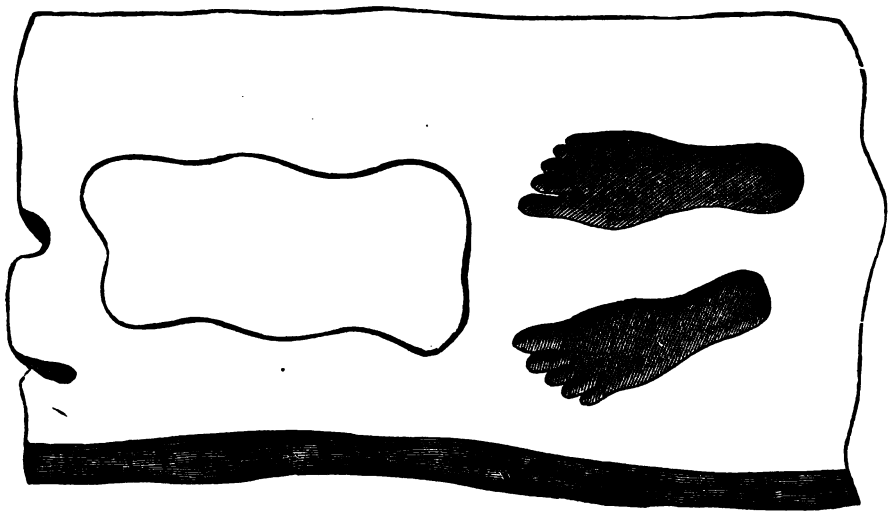
HUMAN FOOTPRINTS IN THE ROCKS AT ALTON.—FOOTPRINTS OF MEN AND ANIMALS IN ROCKS IN TENNESSEE.—FOOTPRINTS IN THE ROCK AT ST. LOUIS.—DESCRIPTION AND ILLUSTRATION.—THE EARLY SETTLERS SUPERSTITIOUS IN REGARD TO THEM.—ANCIENT FOOTPRINTS IN OHIO.—FOOTPRINTS IN IRELAND.—FOOTPRINTS OF THE SAVIOR AT JERUSALEM.—SACRED FOOTPRINTS ON MT. ADAM IN CEYLON.—THE VARIOUS BELIEFS IN REGARD TO THEM.—THE RELATION OF PECULIAR CUSTOMS IN VARIOUS PARTS OF THE GLOBE.

AS before remarked, the representations of human foot-tracks, described as being carved on the rocks, are not uncommon in the Mississippi Valley and some other parts of the Union. At Alton, a short distance from the spot where the Piasa once adorned the bluff, and on the smooth surface of an elevated strata of rock that extended out into the Mississippi, there was to be seen, for many years, a perfect pair of human foot-prints in the solid stone. Just below the city, in early days, was a second pair of these marks of feet in the rock; just as though some man of very large size had stood upon the rock, when it was in a plastic state, and sunk a little distance in the yielding deposit. Although we know these foot-marks are carvings, and belong to the pictographs, it was the almost universal belief among the early white settlers that these works were impressions made when the rocks were soft and not yet petrified. Morse,[1] in his "Universal Geography," speaks of tracks like these found in Tennessee. He says: "In the State of Tennessee, on a certain mountain, called the Enchanted Mountain, situated a few miles south of Braystown, which is at the headwaters of the Tennessee river, are found impressed on the surface of the solid rock a great number of tracks, as turkeys, bears, horses and human beings, as perfect as they could be made in snow or sand. The human tracks are remarkable for having uniformly six toes each, one only excepted, which appears to be the print of a Negro's foot. One among these tracks is distinguished from the rest by its monstrousness, being of no less dimensions than sixteen inches in length; across the toes, thirteen inches; behind the toes where the foot narrows toward the instep, seven inches, and the heel-ball five inches."

[1] Priest's "Antiquities."

Schoolcraft, in his "Travels along the Mississippi" informs us that on the limestone strata of rock, which forms the shores of the Mississippi in the immediate neighborhood of St. Louis, were found the tracks of the human foot, deeply and perfectly impressed in the solid stone.

"The impressions in the the stone are to all appearances those of a man standing in an erect posture, with the left foot a little advanced and the heels drawn in. The distance between the heels, by accurate measurement, is six inches and a quarter, and between the extremities of the toes, thirteen and a half. The length of these tracks is ten and a quarter inches; across the toes, four and a half, and but two and a half at the heel." We reproduce Schoolcraft's illustration.



Carved Pictographs on the Rocks, near St, Louis.

Schoolcraft continues: "Directly before the prints of these feet, within a few inches, is a well-impressed and deep mark, having some resemblance to a scroll or roll of parchment, two feet long by one foot in width."

"To account for these appearances" says the same writer, "two theories are advanced; one is that they were sculptured there by the ancient nations; the other, that they were impressed there at a time when the rock was in a plastic state. Both theories have their difficulties, but we are inclined to the latter, because the impressions are strikingly natural, exhibiting even the muscular marks of the

foot, with great precision and faithfulness to nature." This weakens, he thinks, the theory of their being sculptured.

But what bothered Schoolcraft was, that there were no other tracks going or coming. "It is unaccountable," he says, "unless one may suppose the rest of the rock at that time was buried by earth, brush, grass or some kind of covering."

Had Schoolcraft seen the carvings in the cavern of St. Genevieve Co., he would hardly have thought the birds and the circles, that are associated with the footprints there, were impressions.

The representations of human feet, described as being seen at an early day in the vicinity of Alton, were, as well at those at St. Louis, cut out and taken east; and they are now said to be in a museum in Philadelphia.

There is, however, a very fine specimen of these old carvings in the collection of Washington University at St. Louis. This was found in the vicinity. We have two of these tracks in our own collection, from Missouri. There are numerous others in collections in the different States. We saw some of them in the fine collection of Dr. Jones, in New Orleans.

We have seen one specimen of these carvings, and heard of others, in which, instead of the naked foot being represented, it was the moccasin, or covering.

Engravings of many of these foot-representations, both of naked feet and those on which were moccasins or coverings, are given in the Ohio Centennial Report. The representations of foot-coverings, of which there are so many on the rocks in Ohio, simply show the common primitive foot-gear of the Indian. There is no raised heel.

Keeping prominent before us the ethnological fact that the origin of the Mound-Builders and aborigines of this continent is still unknown to us, we always look with interest on any ethnical relation of customs, habits, traditions, and especially on any hieroglyph or primitive record that may have a bearing on this subject. Eminently germain to this point is the fact that in Europe, and elsewhere in the old world, are precisely such representations of feet carved in the rock.

Various authors tell us that these foot-marks are not uncommon in Ireland; and the "Origin of Religions" speaks of them as still held in great veneration there, as of supernatural origin. The pretty story is told that the peasants of that country believe these marks to be the footprints of saints, whose souls, being released from the trials of earth, sprang towards heaven with such joy and avidity

as to leave on earth, even on the rock, the impression of their last contact with the scene of all their troubles.

As is well known, there is at Jerusalem a shrine erected over similar foot-marks, that are held in great veneration, and believed by some to have been made by Christ when he walked over some rocks in carrying the heavy cross up the hill of Calvary. Mark Twain speaks of these footprints, in "Innocents Abroad," and says the tracks were of large size.

Several writers who have visited the island of Ceylon,—among them Sir Samuel Baker,[1] who spent eight years in that interesting country,—speak of a sacred mountain called Adam's Peak, of which we have read this most interesting account, taken from a St. Louis paper. [2]

"Out of the green depths of the primeval forests of Ceylon rises a mountain seven thousand five hundred feet high. A path up the mountain's side winds to the top; a perilous road up which a great multitude of pilgrims go, assisted in some places on the way by the aid of chains fastened to rings in the rock.

"Now there is a shrine, with silver bells, over the foot-marks. Up this path the pilgrims ascend day and night. At night, for miles away, afar off over the country, can be seen the lights of the weary devotees, as they slowly wind their way toward the shrine on the mountain's top.

"Buddhists believe these two foot-prints to be those of Gautama.

"The Mohammedans believe that Eden was near, and that when Adam was expelled from Paradise he wandered to the top of this mountain, and left in the rock the prints of his bare feet, during a moment of agony in imploring God to replace him in the Garden. Thus it is called Adam's Peak.

"Brahmins believe the foot-marks to be those of their god Siva.

"Portuguese and other Christians believe them to be the foot-prints of St. Thomas. But all make pilgrimages to the sacred spot."

What we are to learn from these strange rock-inscriptions remains to be seen. But the persistency of type, as seen in the most distant parts of the world, is at the very least suggestive of some sort of relation among the customs of the primitive inhabitants of the globe.

1 "Eight Years in Ceylon." 1 "St. Louis Republican."

CHAPTER IX.

THE BONE-CAVERN WHERE THE PIASA DEVOURED ITS VICTIMS.—DESCRIPTION OF THE BONE-CAVERN AT GRAFTON.—THE ANCIENT BONES TAKEN FROM IT.—SINGULAR FACT THAT NO BONES OF THE BUFFALO ARE FOUND EITHER IN CAVES OR IN MOUNDS.—DID THE MOUND-BUILDERS KNOW THE BUFFALO?—THE BUFFALO PROBABLY A COMPARATIVELY RECENT ANIMAL IN THE MISSISSIPPI VALLEY.—ILLUSTRATION OF THE BONE-CAVERN AT GRAFTON.—THE SINGULAR PICTOGRAPH ON THE ROCKS ABOVE THE ENTRANCE.—INDICATIONS OF CANNIBALISM AMONG THE CAVE-DWELLERS.—CAVE ORNAMENTS OF STALACTITE.-CAVES THE FIRST NATURAL HABITATIONS OF MAN.—INDICATIONS IN THE CAVES OF THE AGE OF THEIR OCCUPATION.—THE AGE OF THE ROCK IN WHICH THE CAVES OCCUR.—RELICS MADE FROM FOSSILS.—MOUND ON THE BLUFF OVER THE CAVE.—DESCRIPTION OF THE PICTOGRAPH OVER THE ENTRANCE TO THE CAVE.—VISITS OF THE INDIANS TO THE LOCALITY.—WHAT THEY SAID OF THE CAVE.

IN reciting the tradition of the Piasa, in the first chapter of this volume, Mr. Russell makes mention of a cavern in the bluff below the mouth of the Illinois River, and referred to as one of the fastnesses to which the monster took his victims to be devoured at leisure. In his visit to this cavern he describes it as containing a great quantity of human bones. There is a cavern just below the town of Grafton, known for many years as the "Bone Cave." The outer part of the cavern was simply a huge crevice, open at both ends and extending for some little distance parallel with the river. This part of the cave was twenty to thirty feet in width and perhaps a hundred feet long. The sides of the crevice came together above and formed a roof fifteen or twenty feet in height. The cave, being perfectly sheltered from rain and storms, was very dry; and the floor was covered to the depth of several feet with dust and various debris, consisting of pieces of stone, bones of animals, ashes, charred sticks, pieces of pottery, with some human remains.

In the days of the early white settlers, this cavernous place, which was partially lighted from each open end, was the resort, in inclement or cold weather, for the domestic animals of the neighborhood. On our first visit to the place, some thirty years ago, we had first to dislodge a drove of cows, sheep and hogs which invariably passed the night here during the winter time. At one time a party of coopers used the cavern for a shop, and manufactured barrels for a distillery and mill in the village near by. Later on,

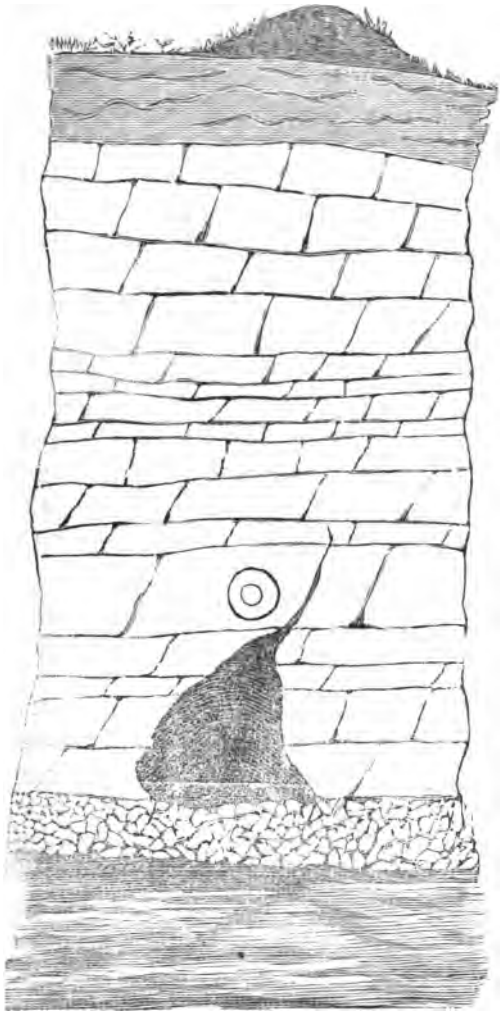
some nomadic families, following the river, made it their residence during a severe winter. Before these later occupations, however, we had opportunities to make excavations in the debris on the floor of the place; and it could be very plainly seen that it had been occupied by the aborigines for ages before. There was quite an accumulation of ashes, in which were river shells, the bones of animals, fishes, turtles and birds, mingled with broken pottery, with some ornaments and stone implements. The bones of the animals, which they had doubtless eaten, were generally those of deer. There were, however, some remains of nearly all the animals native to the region, except the buffalo.

We consider it very singular that in all our explorations, during a period of more than thirty years—during which we have not only examined many caves of the Mississippi Valley, and made especial investigation of those that gave indication of having been inhabited by the ancient cave-dwellers, but also dug in the ancient mounds and especially in the kitchen-middens, or refuse of their repasts, so common in connection with the groups of large mounds,—although carefully observing every piece of bone, to study the habits and customs of these ancient people, we have been able as yet to find only in one instance any remains of the buffalo in connection with the remains of the ancient people of this country.

One would naturally suppose that in the manufacture of their various tools they would certainly have utilized the strong limb bones of the buffalo, as they did those of the elk, deer and other animals. In the caves, as well as in the mounds and about the dwelling-places of these mysterious people, we find great numbers of implements of bone, but never yet a single one made from the bone of the buffalo. In a very large mound, square in shape, three hundred feet on each side and thirty feet high, through which the railroads pass in the American Bottom at Mitchel, in Madison Co., Ills., there was found, in contact with a number of copper implements and ornaments, a number of the teeth of the buffalo. These we have in our possession. They are stained with the oxide of copper, and perfectly preserved. They had most probably been worn as ornaments, by some old Mound-Builder of great distinction, whose dress must have been nearly covered with beautiful ornaments of copper, and whose magnificent weapons of flint would have compared with those of any age; for from his axe and spear, as well as his arrows, the marks of the chipping had been entirely ef-

faced by grinding or rubbing, and they were as smoothly polished as any ivory worked in these modern days.

Why the Mound-Builders did not utilize the bones or horns of the buffalo is yet to be explained. Some ethnologists have argued that during the time of the Mound-Builders there were no buffaloes in the Mississippi Valley. It is now thought by some zoölogists that the range of the buffalo was not near so extensive at the time of the discovery of this country by Columbus, as it became in years after. There is reason to believe that at the time of the explorations of the Jesuits, beginning about 1673, the buffalo had not long been an inhabitant of the continent so far east as Illinois; and the farthest eastern extension of their range, about the Alleghany mountains, occurred after this time. The buffalo quite probably never was to be seen on the east Atlantic coast.



At the lower end of the great cave-shelter we have described, at Grafton, was the entrance to a lateral opening that went at right angles directly into the bluff. This is connected with the bone-cave. We give an illustration of the entrance, showing the situation of the mouth, with one of the circular hieroglyphs, or pictographs, on a ledge of rock above the opening. On the top of the bluff is seen one of the ancient mounds so common in this region.

Below the entrance to the cave is shown some of the debris of loose rocks; and still further down, the shore of the Mississippi, which in very high water approaches near but has never been known to rise so high, by several feet, as to enter the cavern. The triangular-shaped opening to this part of the cavern gave a somewhat difficult access to an inner chamber, not so large as the outer part we have described. The floor of this second chamber is also covered with dust, and an accumulation of bones, pottery, ornaments and stone implements, like the outer cave. The first white settlers say that in their early occupation of the region many human bones could be seen in the inner cavern. In our excavations we found a great number of bones, some of which had been those of human beings. Most of these, like the bones of the animals, had been broken; giving one an impression of cannibalism. Some of the human bones, however, were whole, and we obtained one nearly perfect skull.

Among the ornaments we found several beads of a cylindrical shape. These were perforated, and nearly as large around as one's little finger, and an inch long. They were made, quite apparently, of the stalagmitic secretions of the cavern. The laminæ of secretion gave the light and dark lines, and they were smooth and pretty ornaments. There were some other ornaments of stalactite; and it occurred to us that it was quite natural that this pretty product of caverns should have suggested itself to the cave-men and women as capable of furnishing adornments for their persons. The number of caverns and cave-shelters beneath projecting ledges and overhanging cliffs is very great, and but little known except to those who search for them. The evidence seems to be that, in America as well as Europe, there were primitive cave-dwellers, who, having no habitations of their own construction, sought those provided by nature. These were without doubt, the first habitations known to mankind. It is also quite plainly shown by the evidence that the localities once inhabited by primitive people have been successively occupied by others more advanced, who have come so far out from the pale of savage life as to feel the need of government and laws and religion, and to possess something of the primitive arts. Such a people were the builders of the great Cahokia mounds, and the earthworks of Ohio; and such, probably, were the makers of the pictographs we are so carefully endeavoring to preserve as the only records left. Our patient working may sometime be rewarded with a clew.

We never approached this cavern at Grafton—and we visited it often, for we lived for years not far away,—but that the great crimson circle on the rock above the entrance seemed to look down on us like the blazing eye of a manitou—a veritable guardian of the secrets of ages.

We have sought in vain in the caverns for some indication of the age of the remains. Beyond two or three, or perhaps four hundred years, as shown by living trees and the remains of others, there are no actual data say beyond five hundred years. Many of the caverns exhibit about the floor, as well as on the sides and about the roof, secretions of stalagmite and stalactite. But these secretions seem to have been mostly made during the early history of the caverns, and go on but very slowly at present. In many instances they have entirely ceased. Nearly all the caves that have been inhabited are dry, and the floor has been for ages covered with dust, perhaps even before man entered them at all.

The rocks in which the cave at Grafton is found are of the Upper Silurian age, known as Niagara, and are filled with trilobites, those curious multichambered orthoseras, and many corals. These fossils can be seen in the ledges in and about the cavern, and without doubt attracted the attention of the cave-dwellers as well as the later Mound-Builders; for on more than one occasion we have found ornaments made from them, about the caves as well as in the mounds. One of the most beautiful Mound-Builder ornaments we have seen is one of those taken from a mound on the bluff just below the bone-cavern. It is what is known as a badge or ceremonial stone, shaped somewhat like a double-edged axe, with a perforation as if for a handle. The edges are not sharp, and are wider than the perforated middle. It had been wrought out with great care, was highly polished, and made from a fossil zoophite coral. The white cells of the coral, like those of the bee's honey-comb, were filled with a very dark stony matter, which in the polished ornament showed very prettily; and no doubt the handsome totem was highly prized by its aboriginal owner.

Some of the ancient mounds on the bluff over the cave at Grafton, one being twelve or fifteen feet in height, have had excavations made into them, and have yielded a number of interesting relics. Some have not been explored at all, and nearly all of them remain as they originally were when first seen by the white settlers.

The mound shown in the engraving as being immediately over the

cavern has been excavated away, with a part of the bluff, in the operations of a stone-quarry; and that part of the cliff which a few years ago was adorned with the great red hieroglyphic eye, and the cavern's mouth below, was taken away to build the Lindell and Southern hotels, those prided caravansaries of the City of St. Louis. It is said that the very stone that has this Indian manitou, as the early Jesuits called it, was built into the walls of the Lindell. For this, of course, we cannot vouch.

One of the oldest inhabitants of the town of Grafton is the Hon. Wm. H. Allen, who tells us that, in the early history of the settlement, parties of Indians, in ascending or descending the Mississippi, would camp at the spring near by, and would sometimes ascend the bluff to utter a sort of mournful chant. The tops of the bluffs in this region seemed to have been common burial places for the later Indians; and they sometimes brought their dead from a distance in canoes to inter them on the bluffs. Not in the mounds, which they were not known to disturb in any way, but simply covering up the dead bodies in shallow graves scooped out along the top of the ridge. These Indians seemed to have some sort of reverence for the mounds, but the most diligent inquiry could elicit no information from them as to their history or uses. From the same excellent authority we have it that having enticed parties of Indians, members of several different tribes, to the bone-cavern, and pointed out to them the hieroglyphic painting, they seemed to look at it with an expression of curiosity and reverence; but no information of any kind could be obtained from them on the subject, except that such things were common, to be seen throughout the country. The Indians could not be prevailed upon to enter the cavern; and it seems to be an established fact, gathered from the whites who were brought directly in contact with various tribes of the country, that there was among them a general antipathy against entering caves or subterranean places.

Mr. Allen has taken intelligent interest in these matters. One day when, in his company, we had been excavating in the cavern and stood on the outside, looking at the pictograph on the wall, he explained to us that on certain days when the atmosphere was full of moisture, or after a very wet period, the figure on the rock could be seen much plainer; and he assured me that the same was the case with the picture, with which he was familiar, of the Piasa on the bluff at Alton. We afterwards observed that this was true of

the series of pictographs which we figure on page 22, and which are on the bluff between Alton and Grafton. Some days these could be seen as one passed along the river, when no leaves were on the trees; at other times they were hardly discernable at that distance. From what we have learned of the great pictograph at Alton, we are satisfied that this atmospheric effect has been the cause, in part, of the differences in the descriptions of various observers, from the time of Marquette. An old citizen, born and reared almost under the shadow of the bluff on which the picture of the Piasa was, tells me that "sometimes you could see its wings and sometimes you couldn't." And it is firmly believed by these pioneers that the wings, dimly seen at first, were the first parts of the picture to disappear from age.



Sphynx Pipe of Red Catlinite, found in a Mound on Piasa Creek, Macoupin Co., Ills., size 8 x 8 inches.—See page 46.

CHAPTER X.

ANOTHER PICTURED CAVERN BELOW GRAFTON.—ABORIGINAL REMAINS FOUND ABOUT IT.—SINGULAR PIPE OF STONE FROM MOUND ON THE BLUFF.—DESCRIPTION AND ILLUSTRATION.—THE SINGULAR MANNA PIPES.—OTHER CAVES IN THE VICINITY.—PICTOGRAPHS IN A CAVE NEAR THE MOUTH OF THE OHIO RIVER.—DESCRIPTION OF THE CAVE.—THE CURIOUS FIGURES ENGRAVED UPON THE WALLS.—ILLUSTRATION OE THE PICTOGRAPHS.—TO BE REGRETTED THAT THE EARLY WRITERS DID NOT ILLUSTRATE INSTEAD OF DESCRIBING WHAT THEY SAW.—NO ILLUSTRATIONS IN EARLY WORKS ON ETHNOLOGY.—THE L TTLE VALUE OF OPINIONS.—NEW COLLECTORS QUITE APT TO HAVE MANY THEORIES.—AMUSING THEORY AS TO WHY THE MASTODON WAS CREATED.

A short distance below Grafton, and at the mouth of a hollow just above the Piasa Assembly Grounds, is another small cavern, in which is dimly seen a small pictured circle, somewhat like that over the bone-cavern at Grafton. From this little cavern a number of stone implements have been recovered; and the little field in the mouth of the hollow is literally filled with the refuse of aboriginal dwelling-places. Every rain washes out their stone implements. We have in our collection a most beautiful stone pipe that was taken from a mound standing on the heights overlooking the Piasa Assembly grounds. This pipe is one of those with a curved base. Stretched out on the base is the representation of the body of a lizard, or some saurian, with its long tail bent around by the side of its body. The bowl of the pipe is in the back of the reptile, and the stem for insertion in the mouth of the smoker is a part of the base on which the reptile sits. The whole is most exquisitely carved from a single piece of red stone.

These pipes never show marks of teeth, as from constant usage, and were perhaps not used for the narcotic influence of tobacco, but, we think simply to make a smoke as an offering to their Sun-God. They are not uncommon in the mounds, and are very unlike anything the modern Indian has been known to make. They are artistic, and it is said that almost every known animal and bird in the country has been found represented on these beautiful pipes.

There are other small caves in this vicinity that show evidence of having been occupied in early times; and there are places on the rocky bluff that still show some remains of solitary specimens of ancient painted or carved symbols such as we have described.

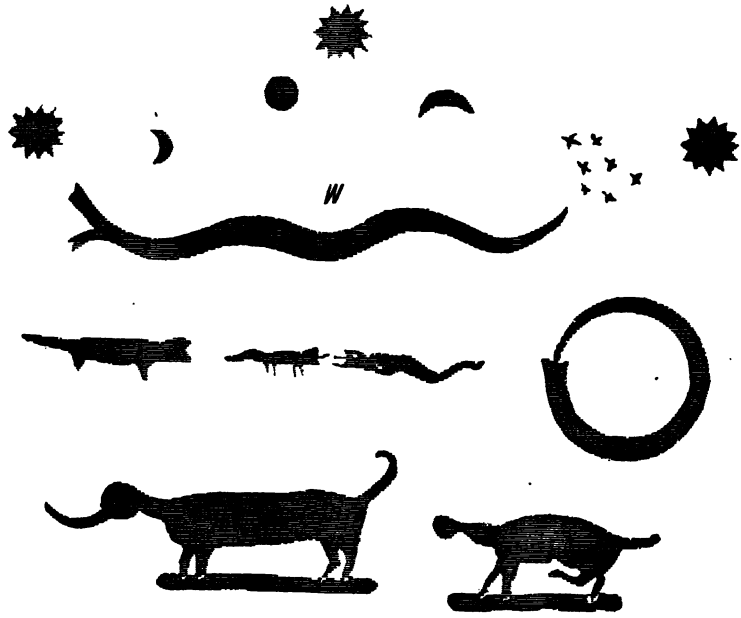
Priest, in his "American Antiquities," speaks of a cavern on the Ohio river that contains a number of hieroglyphic carvings. Several later writers refer to the same cave. Priest, in his description of this cavern [1] says: "On the Ohio, twenty miles below the mouth of the Wabash, is a cavern, in which are found many hieroglyphics and representations of such delineations as would induce the belief that their authors were indeed comparatively civilized and refined.

"It is a cave in the rock, which presents itself to view a little above the water of the river when in flood, and is situated close to the bank. This cavern measures about twelve rods in length and five in width. Its entrance presents a width of eighty feet at its base, and twenty-five feet high. The interior walls are smooth rock. The floor is very remarkable, being level throughout the whole length of the centre, the sides rising in stony grades, in the manner of seats in the pit of a theatre. On a diligent scrutiny of the walls, it is plainly discernable that the ancient inhabitants, at a very remote period, had made use of the place as a house of deliberation and council. The walls bear many hieroglyphics, well executed; and some of them represent animals which have no resemblance to any now known to natural history. There are found engraved, 1st, the sun in different stages of declension; the moon under various phases; a snake biting its tail represents an orb or circle; a viper; a vulture; lizards tearing out the heart of a prostrate man; a panther held by the ears by a child; a crocodile; several trees and shrubs; a fox; a curious kind of hydra serpent; two doves; several bears; two scorpions; an eagle; an owl; some quails; eight representations of animals which are now unknown. Three out of the eight are like the elephant, except the tusks and tail; two more resemble the tiger; one a wild boar; another a sloth; and the last appears a creature of fancy, being a quadrumane instead of a quadruped, the claws being alike before and behind, and in the act of conveying something to its mouth, which lay in the centre of the monster. Beside these there were representations of men and women; not naked, but clothed in somewhat like the costumes of Greece or Rome."

What this author, somewhat given to exaggeration, did see depicted on the walls of this cavern, it is difficult to tell, as he gives no illustrations of the figures, but devotes a great deal of time and space to

1 "American Antiquities," p. 138.

explaining what the figures all mean. Several writers, however, refer to them; and Pidgeon, in his "Traditions of Dacoodah," after describing the same locality, gives a cut, which he says shows all of the figures which could be clearly made out. We reproduce this illustration.



Sculptures in Cave on the Ohio River.

After describing the cavern, his description differing little from that of Priest, he says: "A large portion of the side walls being smooth and even, are covered with singular paintings and figures cut in the rock. These are grouped in clusters and sections, the arrangement of which exhibits evident marks of design. These paintings are much defaced, and some almost obliterated. But those which yet remain cannot fail to be regarded as highly interesting and important relics of antiquity." The figures of the sun are cut in the rock, while that of the moon is painted. The serpent in the form of an orb, the viper attacking a scorpion, a tongueless crocodile, the double-headed serpent, and the seven stars, are on one side. On the opposite wall is the figure of a huge monster, similar to some of the tumular effigies in Wisconsin. There are many other figures on the wall, less clearly defined, some of which are persons clad in ancient dress.

It is to be regretted that many of the early writers on archæology, who had opportunities to see so many objects of interest, should have thought it necessary only to explain and interpret the things they saw, rather than describe them. An illustration of the pictographs in this cavern, with a description of them in detail, would have been one fact gained, when all the theories in regard to their meaning might amount to nothing, but have a tendency to start the real investigator out in the wrong path. Had the early writers on our archaeology but deemed it to have been their duty to describe and illustrate the many things they saw, this collection of facts would have been invaluable to us. As it is, the ponderous mass of theory has so covered up the real, that the whole subject sometimes seems to belong to the domain of myth.

There is yet to be written, in all America, a single work like Evans' "*Stone Implements of Great Britain*," that simply illustrates the collections of Europe and describes them, with notes of the surroundings, and connecting circumstances that seem to be more germain to matters of fact than long-winded theories of the author. One of our first efforts as a writer on archæological subjects was to give the public our theory in regard to the uses of those singular relics called pendants, or plummets, so commonly found in the West. We called them paint-stones, because all we had seen were made of hematite, and upon rubbing them with a little water a red paint could be made; and these pendants were carried by the braves in case they wanted to put on their war-paint or adorn their persons. This was thirty years ago, when we had seen but few of these relics. Since then we have collected hundreds of them, made from almost all kinds of rock; not only of hematite, but of limestone, granite, sandstone and even of jasper, agate and the clearest of quartz. Of course we now know they were not paint-stones; neither do we know to-day why they were made. Our experience is that new collectors are quite apt to be full of theories.

We went on one occasion to see a farmer who had found a very large tooth of a mastodon; and he very kindly gave us the startling information that he had found why these huge animals had been created; namely, to tramp down the rough surface of the new earth and make level places like our prairies. However honest his belief may have been, his imagination, perhaps, was a trifle strong to have made a successful naturalist.

CHAPTER XI.

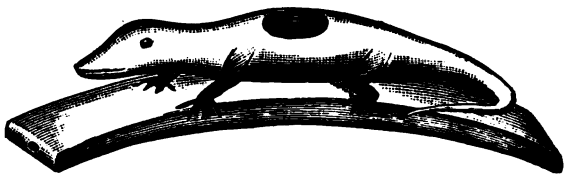
PICTOGRAPHS AND EMBLEMATIC DESIGNS ON THE ANCIENT POTTERY FROM THE MOUNDS.—CURIOUS CUSTOMS IN BURYING THE DEAD.—OBJECTS PLACED IN THE GRAVE.—IMALEMENTS OF STONE AND COPPER.—HOW THEY WERE MADE.—CROWNS AND HEAD-ORNAMENTS OF COPPER.—THE CRESCENT OF COPPER.—HEAD-DRESS OF COPPER WITH PEARL ORNAMENTS IN A MOUND IN ST. CLAIR CO., ILLS.—THE CURIOUS FROG-SHAPED IDOL PIPE.—THE FROG WITH A SCEPTRE IN ITS RIGHT HAND.—SPHINX-LIKE IMAGES RESEMBLING THOSE OF EGYPT.—DESCRIPTION OF A SPHINX FROM A MOUND ON THE PIASA CREEK.—ITS HEAD-DRESS.—EMBLEMATIC IMAGES OF STONE FROM MOUNDS.—COMPARISON OF THEM WITH LIKE OBJECTS IN THE OLD WORLD.

Having given a number of illustrations of figures, either carved or painted on the rocks by some people in the past, each quite probably the result of an effort of the Mound-Builders or other early inhabitants of this country to record some event or epoch in their history, we now propose to show a number of somewhat similar figures found on the ancient pottery and other objects taken from the mounds. It seems to have been a custom among some of the later Mound-Builders, in the interment of their dead, especially when burying a person of note, to place in the grave the ornaments of the departed, together with his badge-stone, or emblem of office, if he had one, and his pipe, which was a sort of personal altar. It is seldom that the Mound-Builder's weapons are found in the grave, except, perhaps, when he possessed a copper axe, or an unusually nice one of stone, upon which a very great amount of labor had been expended, and which was perhaps more for ornament than actual use.

Some of these copper ornaments are made with considerable skill; and some—the large plates worn on the breast—were doubtless very bright and imposing. In three different mounds, at the mouth of the Illinois river, we found head-ornaments of copper, which were crescent-shaped, the ends coming around behind the ears, while the centre of the crescent, three or four inches wide, was over the brows. In a mound on the bluff opposite East St. Louis we found another of these Mound-Builder's crown-like head-dresses of copper, that had been ornamented with pearls and pretty figures from pearl shell. This last old Mound-Builder had in the grave with him his altar-pipe, or smoke-maker, made from a beautiful red stone, and representing a huge bullfrog, which held in its right

fore-foot or hand a curious sort of mace, or sceptre-like handle, surmounted at its upper end with a ball or globe. The base on which the figure sits is a parallelogram—and the whole has a sphinx-like appearance. It is a fine piece of stone carving, and weighs in the neighborhood of ten pounds. In the back of the image is a funnel-shaped opening, the smaller end of which connects with a similar aperture, like the bowl of a pipe, from behind.[1]

We have another of these sphinx-like images (of which we have found quite a number), in which there is represented, on the heavy base, the kneeling or rather the crouched human form. While the head is erect, the upper part of the body is bent forward, with the fore-arms on the knees; and the feet protrude from beneath the buttocks on the base. The right hand of this figure also holds one of the sceptres, or mace like handles, surmounted by a ball or globe.



Pipe from Mound at Grafton.—See page 41.

The face of this figure is a fine, expressive one, and the head is surmounted with a covering, as though of some fabric, not very unlike some of the head-dresses shown in the sculptures exhumed by Layard from the ruins of Assyria. It is a sort of cap of folds, the end of the fold forming a crest or knob at the top. This pretty image, which we have figured in a former work,[2] is considerably larger than the frog-image described above; is of the same red stone, and was taken from a mound on the Piasa creek, a few miles from Alton. Like nearly all these mound images, it has the funnel-shaped opening in the back connecting with a similar one from behind. Like the preceding image, it is highly polished, and as a work of art has certainly no small degree of merit.[3]

That these images of stone were emblematic in character, as connected with some ceremonial rites of the makers, there can be but little doubt. All the mounds from which the relics spoken of were taken contained pottery. The graven image of the sphinx-like human form, and also that of the frog, as they sat in the burial place, were flanked on either side with earthen burial vases as elaborate, we will say more elaborate and artistic, than any taken by Schliemann from the tombs of Mycenæ or Troy.

1 See page 26. 2 Antiquities of Cahokia. 3 See page 46.

CHAPTER XII.

THE MOUND-BUILDERS CUSTOM OF PLACING FOOD IN THE GRAVES.—THE VESSELS PREPARED FOR THE BURIAL SERVICE.—THEIR PECULIAR SHAPE.—THEIR CAPACITY AND MANNER OF MANUFACTURE.—ILLUSTRATIONS.—PECULIAR COMPOSITION OF THE BURIAL VASES.—NO GLAZING OR POTTER'S WHEEL.—SOME OF THE FINEST OF THE CINERARY URNS IN THE GRAVES OF CHILDREN.—THE DIFFERENT TYPES OF BURIAL VASES.—THOSE PECULIARLY DECORATED WITH REPRESENTATIONS OF HEADS, ANIMALS AND PERSONS ON THE RIM.—THE SHAPES OF THE HUMAN COUNTENANCE.—NO BEARD DEPICTED.—A STONE PIPE WITH A BEARD DEPICTED.

ONE of the most interesting customs of the Mound-Builders, and quite probably of other early inhabitants of the southern and middle portions of the Mississippi Valley, was the placing of earthen vessels, containing food and water, in the graves of their dead. The vessels for the reception of the food were of various shapes. Some were simple shallow dishes; others like deeper pans; but the great majority were shaped with taste and skill, not only in the form of ornamental cups and bowls, but also to represent birds, beasts, fishes, and almost all animated nature in their vicinity, together with the human forms.

The greater number of these burial vases are shaped like large cups or bowls, as shown on the following pages. Some of them are of a capacity to hold a gallon, and are dark or light brown in color; some being baked or burned hard, while others show but little sign of the fire, and a few appear to be simply baked or dried in the sun. The material of which they are all composed is very peculiar, being a composition of clay, pounded shells, and perhaps some other substances, which form a kind of cement; for even those which seem not to have been brought in contact with fire, have a tenacity that prevents them from crumbling in water. Some of them are so well made and burned that they are not easily broken, and we have utilized some of the larger bowls for washing purposes, in our camp in Southeast Missouri, for weeks at a time, without injury to them. There is no attempt at glazing; neither have we found any evidence that would indicate a knowledge of the potter's wheel.

On nearly all the vessels there is some attempt at ornamentation; and many have attached to their rims ears or lugs, as if for the purpose of suspension, as shown on page 50.



3

Small vessels of Pottery, Stone Pipe, Stone Implements and discoidal Stone from New Madrid, Mo.

Very few, if any, of these vessels show signs of use, as if they had once been culinary vessels; and, among thousands which we have examined, the great majority of them seem to have been new when placed in the graves, and were probably made for the purpose. In fact, the great care taken in shaping and ornamenting these vessels reveals that under the impulse of affection, love and grief for the departed, among his surviving friends, no labor was too great, and the highest skill of the aboriginal artist was drawn upon, for the occasion. Some of the very finest of these cinerary urns are in the graves of children, showing how the affectionate mother, with the tenderest care, amid her tears, shaped and carved the delicate vases for the graves of her darling.



Burial Vases from Mounds in Illinois and Missouri.

Another type of these food vessels for the grave is ornamented on the rim with the head and neck of some bird or animal. On the opposite side of the vessel is an extended portion of the rim, to represent the tail. Many of these are very pretty, and show no mean order of talent in the manipulation of the potter's clay.

It is said that in a collection of mound vessels of this type nearly every species of duck, common to the Mississippi Valley, could be recognized by the peculiar representation of the duck's head on the rim of some burial vase.



Burial Vases with Ornamental Ears.

Quite a number of this type of wide-mouthed bowls are decorated with representations of human heads. Many of these human faces are roughly made, and have a grotesque appearance; but there is an occasional one showing much expression of countenance. In the illustration on page 52 the large upper vessel shows a good strong face, as though the artist had attempted to pattern in the clay some living face before him. But, of course, we have no means of knowing the fact. We have seen a few of these vases in which the whole

human head and face was given in the shape of the vessel, the head being full size.



Bowls with Ornamental Heads.

No beard is ever depicted; so it is quite probable these people were like our red Indians, or like the Chinese and other nations, either having no beard, or not having the custom of wearing it; for it is well known that among our Indians, as well as some other peo-

ples, if any hair appeared upon the face, it was plucked out. We have ourselves seen our North American Indians plucking straggling hairs from their faces; and all Indians are not quite beardless.

We have a stone pipe, from a mound in Missouri, that has the representation of a human face upon it, and upon the sides of the cheeks, below the ears, is what many have thought to be a beard depicted. We have seen the beard so depicted in the illustrations of Layard's "Ancient Nineveh."



Bowls with Human Heads.

CHAPTER XIII.

BURIAL VASES FOR HOLDING WATER.—THEIR FORMS LIKE THOSE OF EGYPT.—ILLUSTRATION OF LONG-NECKED FORMS.—OWL-HEADED VASES LIKE THOSE FROM TROY.—SKILL OF THE MOUND-BUILDERS IN MAKING POTTERY.—LACK OF ORNAMENTED POTTERY IN EUROPEAN MOUNDS.—THE SUPERIORITY OF AMERICAN RELICS.—MOUND POTTERY.—THE POLISHED STONE AGE OF THE MISSISSIPPI VALLEY.—THE HUMAN FORM ON BURIAL VASES.—WOMEN REPRESENTED.—HEADS OF HUMAN FIGURES SHOWING HEAD-DRESS.—EAR-RINGS AND HEAD ORNAMENTS.—NO IRON BUT METEORIC.—METEORIC IRON HELD SACRED BY THE MOUND-BUILDERS, LIKE THE GREEKS.—STONE CRYSTALS OFTEN MISTAKEN FOR GLASS.—SHAPE AND PECULIARITY OF THE HANDS SEEN ON THE POTTERY.—THE MANNER OF ORNAMENTING THE BURIAL VASES.—A BURIAL VASE FROM CAHOKIA CONTAINING THE COLORS AND TOOLS FOR ORNAMENTING.

THE water-vessels, always accompanying the food vessels, in the mounds, are very peculiar, and some of the types have a strong resemblance to the water-vessels of Egypt. The following is a common form; and hundreds of this shape are to be seen among the collections of mound pottery from the valley of the Mississippi. These are of a capacity to hold from a pint to four or five quarts of liquid.



Fig. 2.

It is thought that our Mound-Builders perhaps used unglazed vessels of this form, like the Egyptians, to hang, filled with water, in the wind, that it might cool by evaporation, but we only know that these vessels are found here in the graves, and were undoubtedly placed there with liquid, in accordance with some religious idea, to benefit the departed in some journey beyond the grave.

In our explorations we have found a number of these vessels of a more complicated form, like the following.

It is quite easy to see that from making useful vessels it would be natural to advance to the ornamental; yet it is a little singular that the ornamentation in almost every particular, of the American

mound pottery, should be so exactly like that of Egypt and the East.

The owl-headed vase in the illustration on the following page is almost exactly like one figured by Schliemann, from Troy.

In reference to the superiority of the skill displayed by the Mound-Builders, in the ceramic arts, to the corresponding efforts of ancient Europe, we cannot do better than quote the words of Dr. Foster: [1]

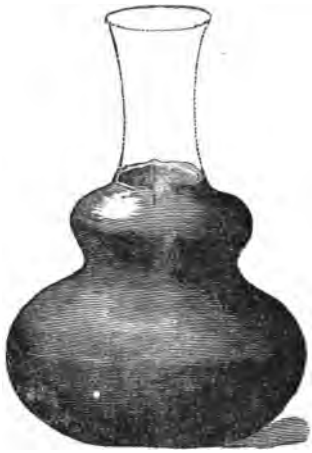


Fig. 3.

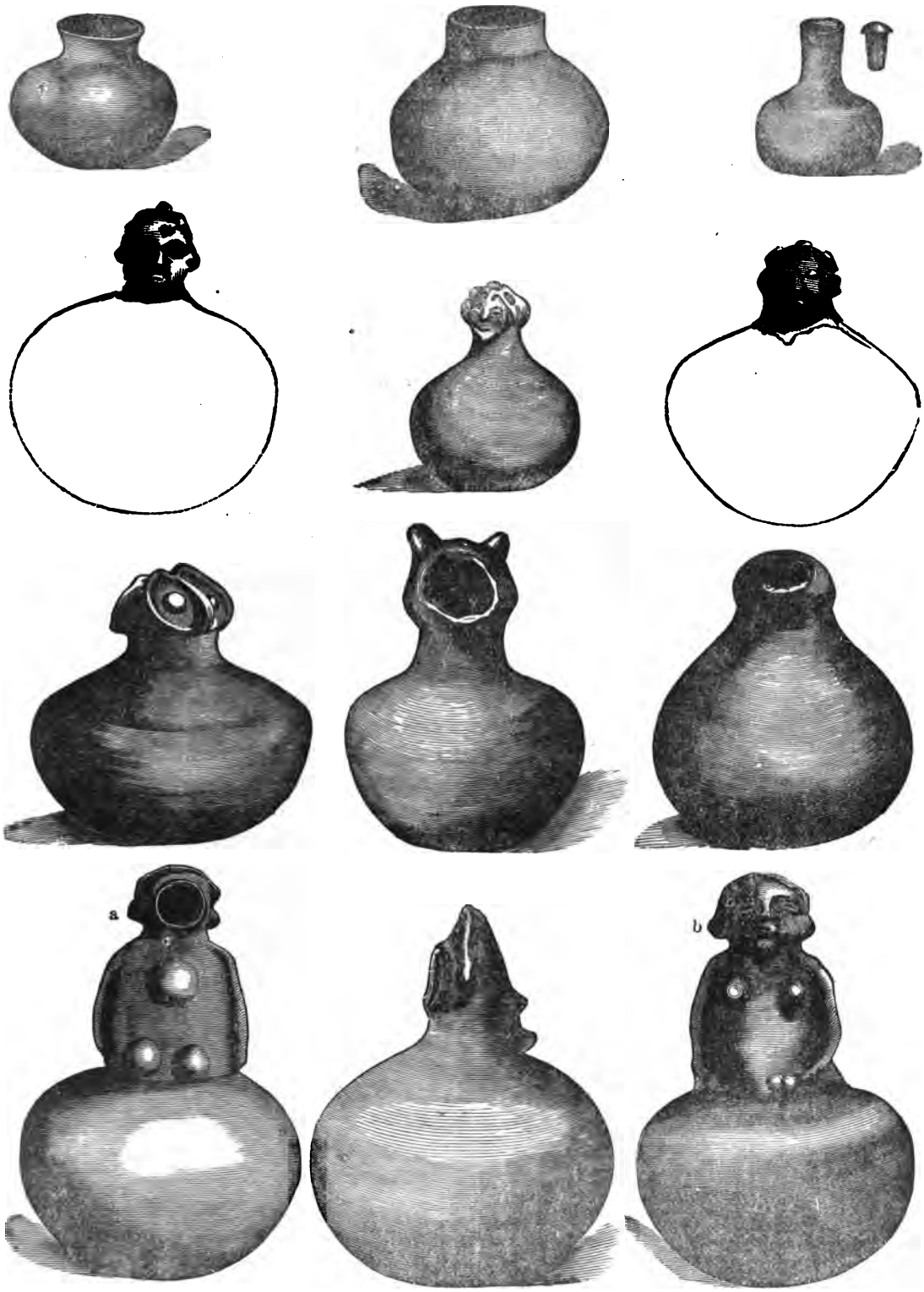
"In the plastic arts, the Mound-Builders attained a perfection far in advance of any samples which have been found characteristic of the Stone or even the Bronze Age of Europe. We can readily conceive that in the absence of any metallic vessels, pottery would be employed as a substitute, and the potter's art would be held in the highest esteem."

From useful forms they advanced to ornamental. Sir John Lubbock remarks that "few of the British sepulchral urns, belonging to ante-Roman times, have any curved lines. Representations of animals and plants are almost entirely wanting. They are even absent from all the articles belonging to the Bronze Age in Switzerland, and I might say in Western Europe generally." But they were common in Greece and Egypt, and the East, as also in the Mississippi Valley.

We believe it would hardly be possible, in all Europe, to get together as fine a collection of implements of the Stone Age as we have made in the Mississippi Valley. Nor do we believe there is a collection of pottery, of the Stone Age of Europe, that can vie with ours of the Mississippi Valley, of the same age.

This valley had even a superior Polished Stone Age, not only in objects made of granite and other primary rocks, but of polished flint or chert; and some of the most beautiful objects of the Stone Age in the Mississippi Valley are those of white chert or flint, in which the marks of the chipping are completely ground off and the surface is smooth and polished. Axes and celts of this kind, in our collection, are far superior to any shown in Evans' "Stone Implements of Great Britain." And if our stone implements are superior,

1 "Prehistoric Races of the United States," p. 236.



Varieties of Drinking Vessels from Southeast Missouri a and b Front and Back View of same Vessel ½ Small Bottle and Stopper.

our mound pottery, in artistic design, is certainly above that of Europe during the same age.

But while there are some good faces shown on some of the human heads adorning the mound pottery, the correct representation of the human body, except in a few instances, is not attempted; the human form not being of a shape to conveniently adapt it for the base of the vessels. We have found specimens, however, in which a person was represented as lying prone on his back, with the neck of the vessel extending up from the stomach. The common manner of representing the body of a man or woman is shown in the two lower figures in the cut on this page.

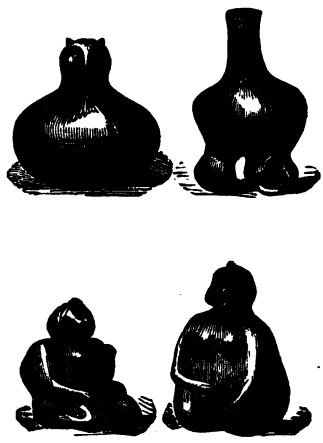


Fig. 5.

Sometimes the base of the vessel stood on three hollow legs, as seen in the upper right-hand figure. Those vessels surmounted with the head of an owl, which are common, are generally of the shape shown in the left-hand upper figure.

In all the vessels surmounted by a head, the opening for the introduction and pouring out of liquid is on the side and not directly on top.

A woman is sometimes represented as carrying a child slung on her back, and men and women in various attitudes; but it is rare to find an obscene representation.

Many of the heads of the human figures show the representation of a head-dress, and the manner of wearing the hair; and some show the ear-rings in the ears. These ear-rings were peculiar, being something like a spool, or more like a very large sleeve-button, and were made to button in a slit in the lobe of the ear. We have found them, of the most elaborate workmanship, in the mounds. Some were of copper, but more commonly of bone covered with copper, and they were sometimes of wood, neatly covered with a thin sheet of copper.

Beautiful ornaments are sometimes found, made of meteoric iron; and they, like the ancient Greeks, held this substance in great reverence. The fact that they had this meteoric iron has led many of the early investigators of our mounds into the most grievous errors, and induced many to believe that the remains of swords and other articles of European manufacture of iron had been found. We fell

into this error once ourselves, upon finding among the treasures by the side of the remains of a chieftain in a large mound a small piece of iron; soft, malleable iron! The foundation of a theory built upon the iron melted quite away when it was shown that it was meteoric. Had the Mound-Builders won "a prize from heaven," like Homer's Grecian hero, who won the lump of iron in the games at the funeral of Patroclus? At another time, in one of the prettiest of ornamented vases from a mound in St. Charles, Mo., we found some glass beads, and we speculated for many days: How did they come by glass, who did not even know how to melt lead. One of these glass beads fell one day and was broken, and we at once discovered that it was "fluor spar" and not glass at all. At another time we received a beautiful gorget of glass; *glass*, everyone said to whom it was shown; yet upon ourselves prosecuting further search in the same mound, we found other similar objects, together with several of the large *quartz crystals* of which they were made.

As the human heads on some of the pretty mound vases reveal something of their mode of dressing the hair, and of the head coverings, so also do we see the size, shape and peculiarities of the hands, even to the finger-nails, on the surface of some of the unfinished specimens of the mound pottery. Their customs are shown, and as will be seen, quite possibly some of the symbolic devices referring to their religion.

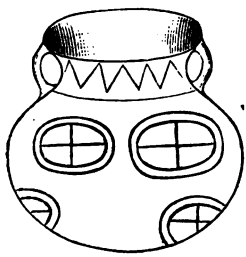
In excavating near the base of the great temple mound of Cahokia, whose towering height of over one hundred feet gave a grateful shade for our labors, we found in a crumbling tomb of earth and stone a great number of burial vases, over one hundred of which were quite perfect. It was a most singular collection, as if the Mound-Builder, with patient and skillful hand, united with artistic taste in shaping the vessels, had endeavored to make a representation of the natural history of the country in ceramics. Some of these were painted, and there were also the paint-pots and dishes holding the colors, together with the little bone paddle for mixing, and other implements of the aboriginal artist. Some of these are figured in our "Antiquities of Cahokia."

CHAPTER XIV

PICTOGRAPHS AND HIEROGLYPHIC INSCRIPTIONS ON THE POTTERY.—A BURIAL VASE FROM A MOUND ON THE ILLINOIS RIVER.—THE SHELL SPOON.—REMAINS OF THE FOOD IN THE VESSELS.—WHOLE EARS OF CHARRED CORN.—THE GREAT NUMBER OF THESE VASES, AND THEIR CURIOUS EVIDENCE.—THE MOUND-BUILDER'S RELIGION AND BELIEF IN AFTER LIFE.—SIMILAR CUSTOMS IN EUROPE.—THE FIGURE OF THE CROSS ON THE VESSELS.—THE CROSS OF THE EGYPTIANS.—THE CROSS OF THE CHINESE.—ITS RECURRENCE COMMON IN AMERICA.

WE have found a number of pieces of this mound pottery, on which are delineated, either by incision or by painting, a variety of pictographs or hieroglyphic inscriptions, some of which are similar to those we have described as being carved or painted on the rocky bluffs and cavernous places. If we connect the makers of the pictographs on the rocks with the makers of the pottery and the builders of our great mounds, then there is an important beginning made toward a collection of facts, that, if followed up, may be the means of furnishing some data for the unravelling of the tangled web of our aboriginal history

Below we give an illustration of one of these burial vases, taken from a mound upon the bluff of the Illinois River, twenty-five miles from its mouth. The vessel has a capacity of little more than a pint. Like much of the ancient pottery in Europe, Asia and America, it has no flat base, being rounded on the bottom. It has lugs or ears on the outer side of the rim, as if for suspension. The majority of vessels of this shape, however, have four of these ears, and some have six. They are probably more for ornament than use, for we have broken a number of them off in simply handling them after they were taken from the mound. The figures on the vase were made with some pointed implement before the vessel had been burned. The ornamental lines about the rim were also incisions. After taking this pretty vase from the mound where it lay, with the remains of a human skeleton, in a rude sort of vault covered with a large flat stone, we seated ourselves under the shade of a tree near by and began carefully to take from it the earth and mold



From Mound on the Illinois.

with which it was filled. At the bottom of the vessel we found a pretty implement, not very unlike a spoon without a handle, and made from the pearly inside of the valve of a large river shell, doubtless a unio. This pretty spoon was some four inches long and a little more than half as wide. After having been cut into shape, with rounded edges, it had been made very smooth and then polished.

It is very common to find these spoons of shell in the burial vases; and sometimes we have found in the mold, and with the shell in the bottom of the vase, a piece of bone of animal, or bird, or the limb of a turtle; and in several instances charred grains of corn. In one large vase were a number of charred corn-cobs, so that we could easily tell the length of the ear of corn and the number of rows of kernels upon it. These ears had been seven to eight inches or more in length, with eight rows of kernels, the rows being in pairs, or each two rows of the kernels being close together, leaving four wider interstices between the rows on the cob. In another instance we found a whole ear of corn, charred, with the grains upon it. During our thirty years labor in the field as an archæologist we have taken more than a thousand of these burial vases from their resting places in the earth, and we fail to remember a single instance when we did not enjoy that peculiar pleasure of expectation as we carefully explored the contents of each old vessel. What history would we find? What record? No matter if we have labored all day in the burning sunlight, under many inconveniences, there is reward in our anticipations. The contents of the vessel are before us; they are very little, yet they tell a story of the Mound-Builder's customs. He had a religion—some sort of a belief concerning an after life; and the corn and the meat and other food had been placed in this pretty burial vase, made for the purpose, that the spirit of the departed might have nourishment while on its travels from the grave to a better land. We have wondered if they had another and opposite place for "bad" Mound-Builders.

Here is an established custom,—not a new one, however. Our fore-fathers, after they became elevated above mere savages, perhaps even after the Romans had pounded some civilization into them at the point of the spear and the sword, buried their dead in the same way. It is common throughout Europe, and we might say all over the rest of the world, that when a very ancient grave is opened, there are the earthen vessels that contained the food and

drink for the spirit of the departed. One singular fact is that these American burial vases are even more elaborately and artistically made than those of Europe, as will be seen from our illustrations.

With these thoughts occurring to us, having finished the examination of the contents of the vase in question, and carefully cleaned the soil from about it, we then examined the clean and neatly cut engravings and ornaments on the outer side. Are they simply ornamental, or do they have a greater meaning? There, repeated several times, is the cross enclosed in the circle. In Europe, where it is ancient and common, perhaps it would be called a Greek cross. But the same figure is seen on the pyramids, and was a hieroglyph in Egypt some thousands of years ago. In fact, according to Wilkinson, a figure almost exactly like the enclosed cross on this burial vase from a mound on the Illinois river, makes a part of the hieroglyphic name of Egypt, in which it is repeated four times.[1] And the same reliable author, in speaking of the sacred cakes of the ancient Egyptians, with which the sacred bulls, consecrated to the service of their god Isis, were fed, and upon which there was made the same sign of the cross, says: "The cross-cake was their hieroglyph for civilized land."

This same figure of a divided circle, however, occurs in the alphabet, or figurative writing, of the Chinese, and has a similar significance, being their emblem for land or country.  The explanation was given to me, by a most intelligent and educated Chinaman, that the cross in the circle had the simple meaning, among his people, of partition, signifying that their land was divided into fields, —in other words, not a wild, but a civilized country.

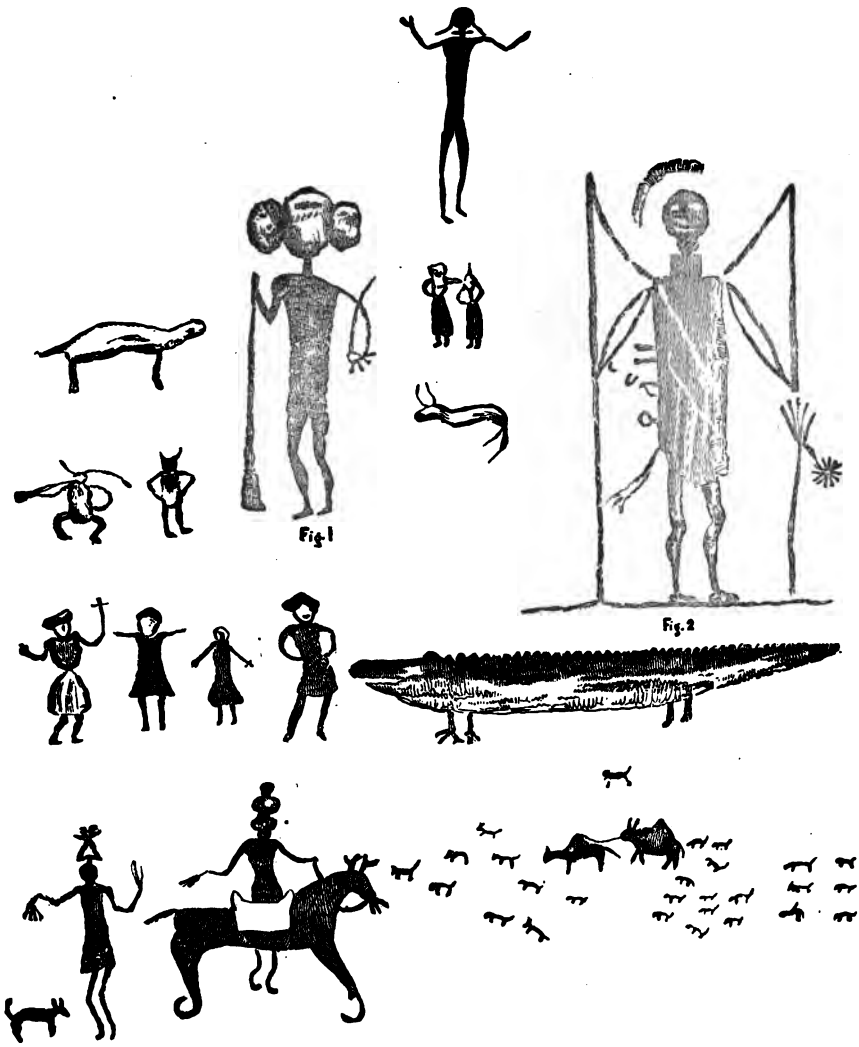
This figure of an enclosed cross occurs many times in the valley of the Mississippi; and we have seen it on the pottery, not only outlined by incision, but painted thereon in the peculiar mineral colors used by the Mound-Builders. It is also seen in the carvings on the bluffs and in the caverns, as well as among the painted pictographs. It occurs also inscribed on the ornaments of shell and other material used by this ancient people: and in a few instances we have seen the same symbol on their implements of stone.

We may remark, here, that this hieroglyphic figure or emblem, common among the Mound-Builders and the more ancient of our aboriginal records, seems not to be common among the later rude

[1] Sir Gardner Wilkinson, "Ancient Egyptians," vol. 1, p. 244.

painted inscriptions of the more modern Indians of the Upper Mississippi and northern parts of the United States.

For the sake of comparison, we give an illustration of a pictograph made by some of the later Indians, of a kind not uncommon in the Northwest.



Pictographs on Rocks, by Indians of the Northwest.

CHAPTER XV.

MOUND VESSELS WITH PAINTED SYMBOLS.—OTHER PECULIAR FIGURES OF THE CROSS.—SYMBOLIC FIGURES OF THE SUN.—SIMILAR FIGURES ON VASES IN EGYPT AND ANCIENT TROY.—ILLUSTRATION OF A VASE FROM A MISSOURI MOUND AND A VASE FROM THEBES, EGYPT.—THE CUSTOMS OF THE MOUND-BUILDERS INFLUENCED BY PREVIOUS HISTORY.—THE POINTS OF PARALLELISM NOT ACCIDENTAL.—THE PECULIAR CROSS WITH THE BENT ARMS.—SCHLIEMANN ON THE EMBLEMATIC CROSSES FOUND IN ANCIENT TROY.—THE ANCIENT CHARACTER OF THIS CROSS.—ITS ORIGIN.—AN INSTRUMENT USED FOR MAKING FIRE.—ORIGIN OF THE WORD CROSS.—HOW THE ANCIENTS FIRST GENERATED FIRE.—THE MANNER IN WHICH THE CROSS BECAME A SACRED EMBLEM.

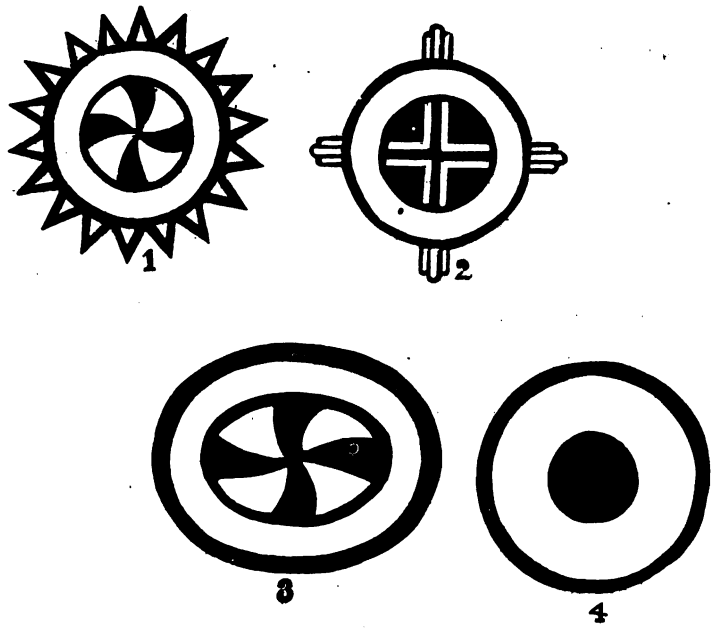
SOME of the water vases, like the more open ones for containing food, are elaborately painted with pigments or colored clays, and bear inscriptions that we believe, as before remarked, to have a greater meaning than mere ornament. One of these, of the more common form, the globular base of which is surmounted by a tall, slim neck, is seen in the engraving herewith. This fine specimen of ancient American art was taken from a mound on the bank of the great river, in Mississippi county, Missouri. It is eight inches and a half high, and six inches in diameter at its widest part. It is made of a peculiar composition of sedimentary clay, mixed with finely-powdered shells and some other substances not clearly determined; a mixture which forms the material of nearly all the mound pottery of the Mississippi valley. It is very symmetrical in form, with a bottom just sufficiently



Earthen Vessel with Inscriptions in Colored Clay.

flattened in the very lowest part to make it stand on a level surface without falling over.

It is, however, the beautiful and artistic decoration of this interesting vessel that gives it its special value to the student of archæology. On the bottom, and extending one and a half inches upward, the color is a deep red; above that line it was originally painted a very light color, as a back-ground for decoration. A portion of the light color, which was nearly white in some places, has become stained a yellowish cast.



Figures on Vase.

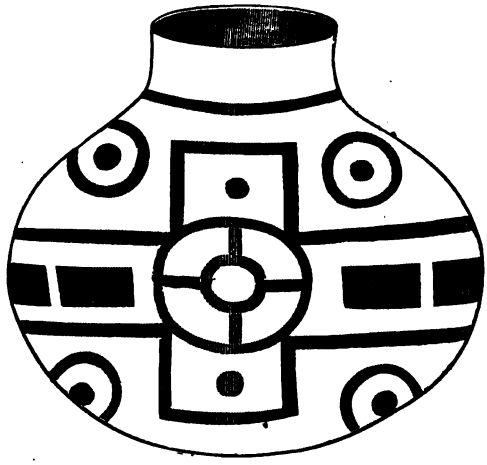
The inscriptions are of a brilliant red color, that, in spite of the antiquity of the relics, still retains its hue in a remarkable manner.

The two upper figures are each repeated twice, and the lower figures each four times. As will be seen from the cut, the figures on this vessel very much resemble some of those among the carvings and paintings on the rocks. They are in fact common pictographic figures, found all through the valley of the Mississippi, not only on the rocks, but on the burial vases from the mounds, as well as on other objects made by this ancient people.

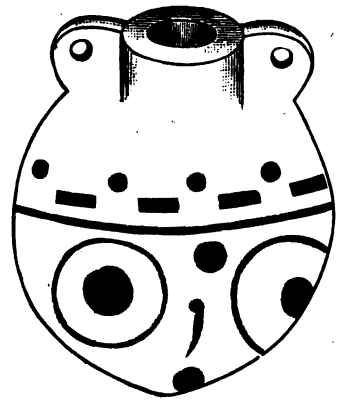
The figure of the circle with serrated edge, as seen in the upper left hand corner of the foregoing group, is not an uncommon one

among the pictographs. The peculiar cross with the curved arms, in the center of this figure, is a very common one on the pottery from the mounds of Illinois, Missouri and Arkansas; and some of the most beautiful of the burial vases are decorated with it in some form. The figure in the lower left hand corner of the cut is similar to the one just spoken of, except that the serratures or rays on the outer circle are wanting.

It is very interesting for us to learn that almost exactly such figures as these are among the oldest of symbolic forms known. They were sacred symbols when the first of all religions began, the worship of the sun. They were used as symbols by our forefathers,



Vase from Mound in Missouri.



Vase from a Tomb at Thebes, Egypt.

the ancient Aryans, in these or similar forms, to represent the great luminary. In fact, all the figures on this funeral vase from an old mound in Missouri are common symbolical representations, used by the primitive peoples of the old world. Schliemann dug up from the site of Ilium, on the Trojan plain, innumerable relics, bearing just such symbols; and Sir Gardner Wilkinson found them everywhere in ancient Egypt. A recent writer has said: "We can not be too cautious in drawing impressions from analogies; yet comparison will not necessarily propagate errors, but will serve to elucidate obscure questions."

In the illustration above we show another one of those beautiful burial vases, taken from a mound in New Madrid county, Missouri. This illustration is reproduced from that splendid work on Archæology issued by the St. Louis Academy of Science. The

figure on the right is taken from Wilkinson's "Ancient Egyptians," and was recovered from a tomb amid the ruins of ancient Thebes, in Egypt. That we have taken scores of burial vases from the ancient mounds of Illinois and Missouri, almost exactly duplicating the most peculiar shapes of many from Egypt, would in itself be remarkable, but that many of these should be ornamented in the same peculiar way, and bear the same symbolic inscriptions, is at least suggestive. For the age of the vase from the mound in Missouri we have as yet, perhaps, no data; but for the Theban vase we go back in the history of the past, among the temples, tombs and pyramids, full three thousand years; perhaps more; for it was nearly that long ago, doubtless, when Homer wrote his Iliad, where he makes Achilles exclaim, "Not though you were to offer me the wealth of Egyptian Thebes, with its hundred gates?" Yet according to Schliemann, Homer's knowledge of heroic Troy was only traditional. Our mound vase may not be as old as the Egyptian one; nor is it necessary that the makers should be cotemporary in point of time. The object of this chapter is simply to call attention to some remarkable facts in American archæology, and to compare them with similar facts in the ancient history of other parts of the world.

It is a favorite theory with some of our best known archæologists that primitive men, however widely separated, have under like conditions reached like results, through natural requirements and surroundings alone. We used to hold to this idea; but during our work in the field so much counter evidence has been placed before us that we have abandoned the theory, having been forced to see that some previous influence, some remembrance it may be, in connection with his origin on this continent, has been instrumental, in some degree, in shaping the life of the Mound-Builder of this country. Some points of parallelism may be accidental, possibly, but we do not think our readers will so accept the analogies we here present.

The circle with the globe or ball in the centre, as seen on both the Mound-Builder and Egyptian vases we have just figured, is a very common symbol, not only on the pottery and in the pictographs of the caverns, but also in the Mound-Builders' earthworks. Of these we shall speak later on. We wish to call attention to the cross-like figure on the mound vases in the last illustration. This form of cross, together with that of the cross in the preceding illustration, where the arms of the cross are bent or crooked (very common on our mound pottery), is also very similar to crosses found by Dr.

Schliemann on earthen vessels and other objects while excavating on the site of ancient Troy. He says: "Many of these Trojan articles, and especially those in the form of volcanoes, have crosses of the most various description, as may be seen in the drawings. The form  occurs especially often; upon a great many we find the sign  of which there are often whole rows in a circle round a central point. In my earlier reports I never spoke of these crosses, because their meaning was utterly unknown to me. I now perceive that these crosses on the Trojan terra-cottas are of the highest importance to archæology.

"I consider it necessary to enter more fully into the subject, all the more so as I am now able to prove that both the  and the  which I find in Emile Burnouf's Sanscrit lexicon, under the name of "suastika" and with the meaning or sign of good wishes, were already regarded, thousands of years before Christ, as religious symbols of the very greatest importance among the early progenitors of the Aryan races in Bactria, and in the villages of the Oxus, at a time when Germans, Indians, Pelasgians, Celts, Persians, Slavonians and Iranians still formed one nation and spoke one language. For I recognize at the first glance the 'suastika' upon one of the three pot bottoms discovered on the bank of the Oder, and which gave rise to very many learned discussions, while no one recognized the mark as that exceedingly significant religious symbol of our remote ancestors.

"I find a whole row of these peculiar crosses all around the famous pulpit of St. Ambrose, in Milan. I find it occurring a thousand times in the catacombs of Rome. I find it in three rows, and thus repeated sixty times, upon an ancient Celtic funeral urn discovered in Shropham, in the county of Norfolk, and now in the British Museum. I find it also upon several Corinthian vases in my own collection, as well as on two very ancient Attic vases in the possession of Prof. Kusopolus, at Athens, which are assigned to a date as early at least as a thousand years before Christ. It is to be seen innumerable times on the most ancient of Hindoo temples. I find in the Ramayana that the ships of King Rama—in which he carried his troops across the Ganges on his expedition of conquest to India and Ceylon—bore the on their prow. And it is said that the Phnœician ships bore the same old sign from the Aryans— good wishes,—in their voyages to Ophir during the reign of King Solomon.

"It is to be seen on the sacred footprints of Buddha, carved on the Amraverti Tope, near the river Kistna,[1] where it is repeated again and again on the toes, heels and other parts of the footprints.

"Emile Burnouf, in his excllent *La Science des Religions*, just published, says: The  represents the two pieces of wood which were laid cross-wise upon one another before the sacrificial altars in order to produce the holy fire, and whose ends were bent around and fastened by means of four nails,  so that this wooden scaffolding might not be moved. At the point where the two pieces of wood were joined, there was a small hole, in which a third piece of wood in the form of a lance was rotated by means of a cord made of cow's hair and hemp, till the fire was generated by friction. This was the manner of making fire before the use of flint and steel.

"Upon my writing to M. E. Burnouf to inquire about the other symbol, the cross in the form  which occurs hundreds of times upon the Trojan terra-cottas, he replied, that he knows with certainty from the ancient scholiasts on the Rig-Veda, from comparative philology, and from monumental figures, that 'suastikas,' in this form also, were employed in the very remotest times for producing the holy fire. He adds that the Greeks for a long time generated fire by friction, and that the two lower pieces of wood that lay at right angles across one another were called '*otavpos*,' which word is either derived from the root 'stri,' which signifies lying upon the earth and is then identical with the Latin 'sternere,' or it is derived from the Sanscrit word 'stavara,' which means firm, solid, immovable. Since the Greeks had later other means of producing fire, the word '*otavpos*' passed into use simply in the sense of 'cross.'

"Other passages might be quoted from Indian scholars to prove that from the very remotest times the  and the  were the most sacred symbols of our Aryan fore-fathers."

Thus the enthusiastic Schliemann, fresh from the deep excavations he was making amid the ruins of Troy, sits himself down in the library at Athens, with the old Greek books before him,

[1] This is another of those curious ancient foot-prints spoken of in a preceding chapter, so commonly seen on the rocks along the Mississippi. Dr. Schliemann gives an illustration of it, and it is interesting to note that on this old carving, made in India many centuries ago, the toes, heels and other parts of the feet have devices cut upon them almost exactly like some on our mound pottery.

endeavoring to learn the meaning of the strange things he was dragging from the historic earth at Ilium.

Primitive men had learned to generate fire by friction. Improving a little, they made a simple instrument for this purpose, of two pieces of wood crossed. They were Sun-Worshippers, and in making the fire for their sacrifices, this little implement of two crossed sticks was, the better to use it, and that it might be more stable, fastened to the altar by a nail through each of the four projecting arms. When they wished to generate fire, a stick was placed in the hole in the centre of the cross, and having attached a cord or bowstring, the stick was rapidly rotated until the friction generated combustion, and behold there was fire. Is it any wonder that these primitive people considered fire a supernatural element, when even in this day of scientific learning fire is still a sort of mystery to our savans, and any explanation of the phemomena seems to be lacking in clearness?

It is also very natural that the implement with which the mysterious fire was brought to them, connected as it was with the sacred rites, should itself become a sacred symbol.

This is a most interesting history of the sign of the cross among our Aryan forefathers. The sign, simple enough in the beginning, took on, in the after ages, many embellishments and additions, but has never lost, and retains to day in its base, the primitive form of the ancient fire-sticks.

CHAPTER XVI.

ANOTHER MOUND VASE WITH SINGULAR SYMBOLIC SIGNS.—ILLUSTRATIONS OF THE DEVICES.—THE SINGULAR SIGN OF T OR "TAU," BY THE EGYPTIANS.—RESEMBLANCE TO CHINESE CHARACTERS.—PLACING OF AMULETS ON THE BREASTS OF MUMMIES BY THE EGYPTIANS.—THE SACRED BEETLE.—THE SYMBOL ON THE BEETLE'S BACK.—SIMILAR CUSTOM AMONG THE MOUND-BUILDERS.—THE CURIOUS GORGETS OF SHELL.—THE CROSS ON THE SPIDER'S BACK.—THE ANCIENT SYMBOL OF "GOOD LUCK."—NO PHALLIC WORSHIP IN AMERICA.—THE ORIGIN OF THE T OR "TAU."—THE ENEMIES OF THE EGYPTIANS WORE A GORGET WITH A CROSS LIKE THE MOUND-BUILDERS.—CURIOUS AND SUGGESTIVE COMPARISONS.—THE MALTESE CROSS ON MOUND POTTERY.—COPPER CROSSES.

WE have another pretty burial vase, or water-vessel, from a mound on the line between S. E. Missouri and Arkansas. It is a little larger than a somewhat similar shaped vessel figured on a preceding page. The tall neck is of the same shape, but the base is quite different—flat on the bottom, around which are arched apertures. This base is hollow, and has the appearance of having been added after the body of the vase had been completed.

It stands staight on its base, has been burned, and appears to be strong and serviceable. It shows but little sign of age, and the ornamental lines and symbolic characters, still clear and plain, are made with a bright red pigment, which, it may be worthy of remark, is the same color, according to Wilkinson,[1] used by the ancient Egyptians in similar decorations. It is exceedingly neat and symmetrical in shape, and perhaps it would not be too much to say that it would require an artist of no mean pretensions to excel it on the potter's wheel of to-day.

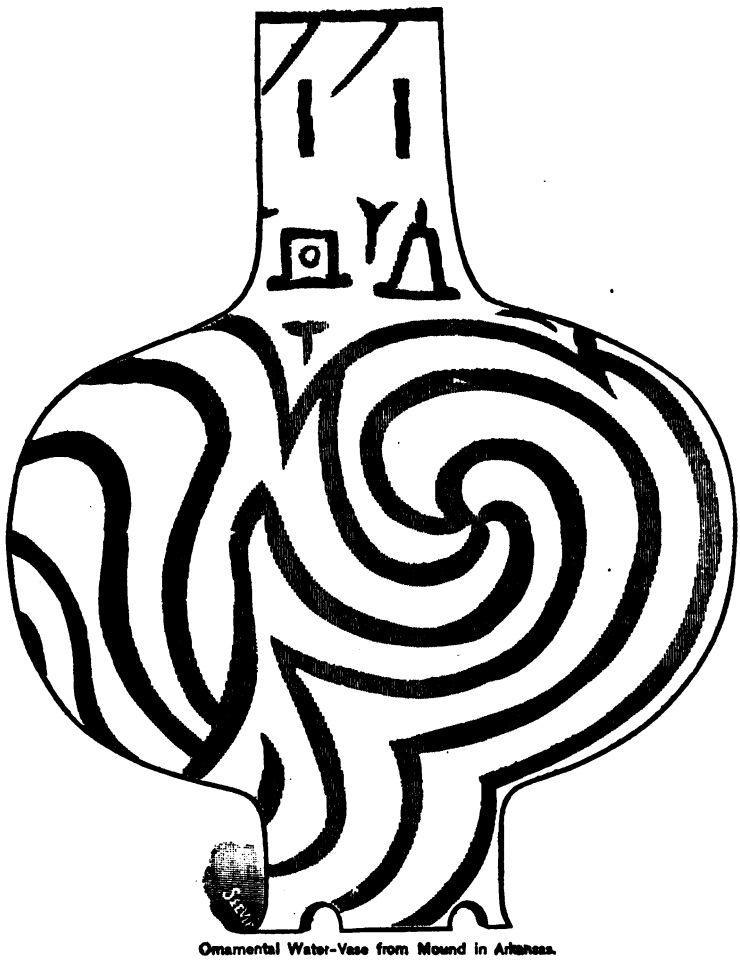
But that to which we would more especially call the attention of our readers is the row of symbolic designs about the base of the



neck of the vessel. They are six in number, following consecutively as above. The last figure T, however, is repeated several times on the vessel. This T, or *tau* as the Egyptians called it, was a sign of

1 Vol. ii, p. 292, "Ancient Egyptians."

life on all their ancient monuments. Several of these figures are common on the great obelisk from Egypt recently set up in New York. They have a great resemblance, also, to Chinese characters. It is well known to Chinese scholars, that many characters which

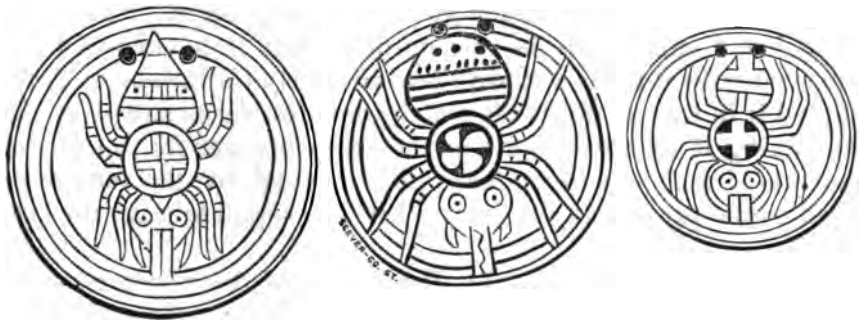


Ornamental Water-Vase from Mound in Arkansas.

originally were of circular form, were latterly made square, the better to manipulate them on the introduction of type. And the Chinese now, in writing the old style, make some figures round which in the type are square.

It was a custom of the ancient Eyptians to place on the breasts of their mummies a sort of amulet or sacred object. One of the most

common of these, according to Wilkinson, was a scarabæus, or sacred beetle. This was carved from a great variety of hard stones, such as agate, amethyst and even the most precious of gems. Every one of these beetles bore on its back the sacred *tau* or T, the Egyptian symbol of life. The lines of separation of the wing covers of the beetle naturally form this sign on its back, but in many of the beautiful scarabæi we have seen the *tau* or cross is dominant either by incised lines or by being raised in relief.



These scarabæi are so common about the mummy-pits of Egypt that hundreds are sometimes collected, made of great varieties of stone, each insect bearing on his back the sacred cross.

It is very singular that the Mound-Builders of the Missisippi Valley should have had a custom quite similar. It is common in the mounds, especially those in the American Bottom, as well as in Missouri, Arkansas and Tennessee, to find on the breast of the skeleton a circular disk or gorget of sea-shell. This shell disk generally has carved upon it some symbolic sign; and we have found a number of them on which was carved an insect, generally a spider. But what is most singular is that the back of the insect invariably bears the symbol of the cross. We give above an illustration of three of these engraved shell gorgets, taken from three different mounds. We have selected these three because each figure of the cross is a little different. It will be seen that they are exactly like the symbols figured and described by Schliemann, so common on the whorls and other objects dug up at Troy.

The cross on the gorget in the centre is precisely like that of the ancient Trojans and Greeks, and which Schliemann thinks had its origin in the cross-sticks on the altars of the ancient Sun-Worship-

pers, the ancient symbol of good luck. That the symbol of the cross is an ancient one there cannot be the least doubt, whether it originated from the ancient fire-sticks among the Sun-Worshippers, as advanced by some, or in phallic worship, as advanced by others. We are inclined to the former. But our object is not so much to find the origin of the cross, as to find, if possible, from what source our Mound-Builders derived the symbol.

There is some reason to believe that the peculiar Egyptian *tau* may have been a different symbol from that of the cross. Wilkinson, whom we consider good authority, says. "The origin of the *tau* I cannot precisely determine, but this curious fact is connected with it in later times—that the early Christians of Europe adopted it in lieu of the cross, which was afterwards substituted for it, prefixing it to inscriptions in the same manner as the cross in later times; and numerous incriptions headed by the *tau* are preserved to the present day in early Christian sepulchres at the Great Oasis."

In the illustrations given by Wilkinson of the "enemies of the Egyptians," [1] taken from the sculptures at Thebes, there are shown two groups of people who wear on their breasts, apparently suspended by a cord around the neck, circular amulets, almost pre cisely like the shell disks from our American Mounds, with the same shaped crosses in the centre. [2] He says: "Enemies of Egypt, whose name is lost, were distingushed by their peculiar custom * *. Round their neck, and falling upon their breasts, was a large round amulet, very similar to those of the Dervishes of the East; in which they resembled the Assyrian captives of Tirhakah, represented on the walls of Medeenet Haboo."

In another place, describing the sculptures representing the enemies of Egypt, he says; [3] "The girdle was sometimes highly ornamented; men as well as women wearing ear-rings; and they frequently had a small cross suspended to a necklace, or to the collar of the dress. The adoption of this last was not peculiar to them; it was also appended to, or figured on the robes of the Rot-n-n, and traces of it may be seen in the ornaments of the Rebo, showing that this very simple device was already in use as early as the fifteenth century before the Christian era."

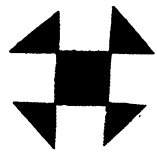
1 Wilkinson's "Ancient Egyptians," p. 391, vol. 1.
2 "Ancient Egyptians," p. 393, vol. 1.
3 "Ancient Egyptians," p. 396, vol. 1.

It must be remembered here that Sir Gardner Wilkinson is describing the sculpture of the ancient Egyptians as he saw it at Thebes and other places; and that we, in this work, are endeavoring to compare relics discovered by ourselves in our ancient mounds, not theories. A person who has worked for years may be permitted to make comparisons, or show the analogy of his work to that of some other, but a man without an original discovery is pretty bold to go before the world with simply a theory. We do not know who the Mound-Builders were, any more than we know who some of the enemies of the Egyptians were, as sculptured on the rocks at Thebes; but we believe it to be worthy of notice, that another people, in Asia, are known to have once worn some of the same peculiar symbols that we find in the graves of the Mound-Builders of the Mississippi Valley. These peculiar symbols were, by both the Mound-Builders and by the race of people shown in the sculptures of Thebes, carved on disks of shell, and worn suspended by a cord from the neck. By examining the cuts of the three mound disks, which were accurately engraved from photographs, one will see at the top of each gorget the two holes by which they were suspended; and to see how these were worn, turn to page 391, vol. 1, Wilkinson's "Ancient Egyptians," and on one of these "enemies" will be seen, suspended from his neck, a disk on which is the figure of a peculiar double cross, just like the one on the left of our engraving of the three mound disks.

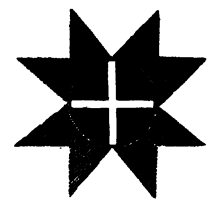
We think it remarkable that the Egyptians, or in fact any people of Asia, should have the same peculiar symbol of the cross as the Mound-Builders; but that both should have engraved this peculiar symbol on the back of an insect, as a sacred emblem, is still more suggestive, to say the least. Almost every form of the cross, revered in the Old World in the ages past, is found common in the mounds and ancient ruins of America. The cruel Spaniards, with the wicked Catholic priests, who pillaged Mexico and mercilessly tortured Montezuma, saw the Aztecs adoring the symbol of the cross. The same may be said of the Toltecs and Peruvians; in fact, so universally was it revered by the ancient people of America, that Gomora, the Spanish historian, says: "This veneration of the cross made them more ready to adopt the Christian symbol." We do not care to discuss here the relation of the more advanced races of Mexico, Peru and other parts of the continent with the Mound-Builders of the Mississippi Valley; but merely remark that they seem to

have inherited the same peculiar customs, and had a solar worship.

Common as were most of the forms of the cross in America, it is not generally known that some of the more intricate forms were frequent. What is known as the Maltese cross was common. Mr. Edwin Barber, in the *American Antiquarian* for July, 1878, in an article calling attention to the remarkable similarity, not only of the shape, but of the very peculiar decorations of Pueblo pottery, to the Greek and ancient Egyptian, says: "The Maltese cross, or a device analogous to it, is very common to the Pueblo pottery of the west, and is usually found decorating the centre of shallow bowls. Figure 13 is a Greek design on the Pueblo pottery. It might also be considered a modification of the East Indian or Buddhic 'suastika,' or what the Chinese call 'wautse.'" We reproduce his figure from the Pueblo pottery. Also a somewhat similar device from a



Device from Pueblo Pottery.



Device on Mound Pottery from Missouri.

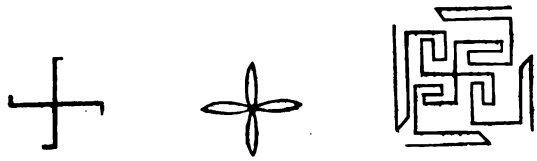
beautiful piece of pottery from a mound in Missouri. Both of these figures have the eight points of the Maltese cross. The one on the right, from the mound pottery, has enclosed in its centre another cross, common among mound objects, especially pottery, and, as we have seen, on the shell gorgets. We have another vessel in which this latter neat cross is reproduced, with the centre one having still a third, like the one in the shell gorget, page 71.

Prof. F. W. Putnam, the enterprising and idefatigable collector who has made the Peabody Archaeological Museum of Hartford College famous, gives in the fifteenth report of the Museum of which he is curator, a number of illustrations of cruciform objects made of copper, taken from ancient mounds in both North and South America. These were worn on the breast suspended from the neck, as amulets or symbolic adornments, in precisely the manner of the "enemies of the Egyptians," as shown in the sculptures of ancient Thebes.

CHAPTER XVII.

SCULPTURED CROSSES FROM MEXICO.—SYMBOLIC SIGNIFICANCE OF THE CROSS.—THE JAINA CROSS.—THE RESEMBLANCE OF SOME MOUND SYMBOLS.—MASONIC DEVICES. ANCIENT EARTHWORKS IN THE FORM OF MASONIC SYMBOLS.—THE CIRCLE, SQUARE AND TRIANGLE COMMON FORMS WITH THE MOUND-BUILDERS.—MASONRY HAD ITS ORIGIN IN SUN-WORSHIP.—BELZONI'S TOMB IN EGYPT.—MASONRY AN ANCIENT RELIGION.—THE INDIANS THOUGHT TO BE MASONS.—THE HIDDEN HISTORY OF MANKIND.

LORD Kingsborough, in his "Antiquities of Mexico" gives illustrations of numbers of crosses found sculptured there, among which are the following:



Ancient Crosses from Ruins in Mexico.

Of these Dr. Weisse, in his "The Obelisk and Freemasonry," makes the following remarks: "All crosses have more or less symbolic significance. The third of these Mexican ones looks like a cross of high importance in Masonry, because it is but a modification of the cross used by the widely diffused order of Ishmael. It has been found on Assyrian, Egyptian, Hindu, Trojan, Roman, Mexican and Peruvian ruins. It has been called the Jaina cross, because it is so highly cherished by the Hindu caste, named Jains. It is even found on Gothic cathedrals and fortifications of Central Europe; so that its esoteric meaning must have been known to the ancient dwellers of the Western Continent."

Being a Knight Templar himself, the writer's attention has been many times called to the resemblance of these cruciform devices to Masonic emblems; and it is indeed strange that there are few Masonic emblems which can not be reproduced from the symbolic devices of the Mound-Builders of the Mississippi Valley. Not only are these symbolic devices, resembling those of Masonry, figured in their hieroglyphics, on their burial vases, on their amulets and other objects, but in the shape of vast earthworks, that are numerous throughout our "Great Valley." Forms like those on page 76 are common in Ohio and elsewhere, in embankments of earth, which in some instances enclose many acres of ground. The circle, the

square and the triangle were well known symbolic forms among these ancient people.



Beside these symbols, we have seen quite enough, during our explorations in the mounds, to warrant us in believing that many of the religious observances of the Mound-Builders were analogous to Masonic ceremonies. Were the Mound Builders Masons? No; but they were Sun-Worshippers, and this worship was probably the beginning of all religions, and the beginning of all society. Masonic archæologists have reason to believe that Masonry is older than the Pyramids of Egypt, existing, perhaps, before there were any structures of a public character, "when they met upon the highest hills and in the lowest valleys, and worshipped the sun, the all-seeing eye." To-day, as an archæologist, we look at these things just as we do on other antiquities. The ancient history of Egypt carries with it the history of Masonry. Whoever has read Mariette Bey's "Monuments of Upper Egypt" and the description of Belzoni's tomb, will have an idea that when the Phœnicians laid the foundations of Solomon's temple Masonry was a relic of antiquity, and had been a religion for centuries before.

Nearly all the nations of the old world began their advancement as Sun-Worshippers; and it is a singular fact that some of these ceremonies and superstitions still cling to us, even in our Christian religion.

There is a tradition which we have seen in accounts of Eastern history, that the Temple of Solomon was built by Phœnician workmen after a copy of their own Temple of the Sun in Tyre, with the difference that in the east the great burnished emerald which represented the sun was replaced in the Jewish temple by the "all-seeing eye."

It is said that some of the early travelers among our Indian tribes brought back the astonishing reports that some of the Indians, from their ceremonies and symbols, must have some knowledge of the Masonic fraternity. It is much more probable that Masonry was derived from their old religion.

Ah! If we only knew from whom they learned to make the sign of the cross, and the symbols on their breast-gorgets, then might we begin to unravel the hidden history of mankind.

CHAPTER XVIII.

THE MISSISSIPPI VALLEY ONCE THE HOME OF A VAST POPULATION.—THEIR TOWNS, AGRICULTURE, GOVERNMENT, ÆSTHETIC TASTES.—THE ANCIENT SITES OF TOWNS OCCUPIED NOW.—THE MOUND-BUILDERS' HABITS AND CUSTOMS THE RESULT OF A FORMER INFLUENCE.—ST. LOUIS THE SITE OF AN ANCIENT TOWN.—ILLUSTRATION OF A GROUP OF MOUNDS IN THE CITY.—THE TRUNCATED PYRAMIDS.—THE SINGULAR TRIANGULAR EARTHWORK.—EMBLEMATIC AND SYMBOLIC MOUNDS OF WISCONSIN.-THE SACRED CIRCLE.-THE SANCTUARY OF THE SUN-WORSHIPPER.—HUMAN SACRIFICES BY THE MEXICANS AND GREEKS.—THE SACRED PENTAGON A PLACE OF SACRIFICE.—A SUN CIRCLE IN CALHOUN CO., ILLS.—EARTH-WORKS IN OHIO.

"WHAT the Mississippi Valley was once the home of a vast population, composed of tribes who had fixed habitations, dwelt in large towns, practiced agriculture with a good degree of method and skill; who had a well-organized system of religious rites and worship, and whose æsthetic tastes were far in advance of the savage who roamed over her prairies and hill-ranges when her great rivers were first navigated by white men, is, we are confident, no difficult matter to prove." [1]

Mr. Brackenridge, who was an extensive traveller, and a man of excellent judgment, in speaking of the ancient works in the Mississippi Valley, says: "It is worthy of observation that all these vestiges invariably occupy the most eligible situations for towns or settlements; and on the Ohio and Mississippi they are most numerous and considerable. There is hardly a rising town, or a farm of an eligible situation, in whose vicinity some of these remains may not be found. I have heard a surveyor of public lands observe that wherever any of these remains were met with he was sure to find an extensive body of fertile land." [2]

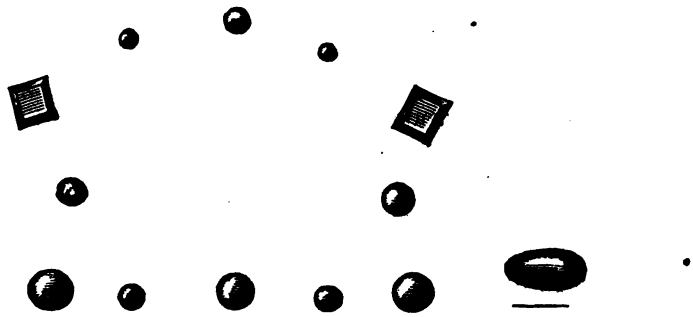
Brackenridge wrote of these things seventy-five years ago, but the same holds good to day. Wherever there is a considerable town on the bank of the Mississippi, it will be found to be built upon the ruins of an older one, of the builders of which we know not even the color, let alone the name, origin or condition. Perhaps the last word ought not to have been written; for we do know their "condition;" and whoever reads these pages will know something

1 Conant.

2 "Views of Louisiana."

of their manners and customs, even their religion, and will certainly be impressed with the seeming fact that the Mound-Builder either was at one time an immigrant from other shores, or had his life-destinies warped by those who were immigrants.

Even the city of St. Louis used to be, in early days, called "The Mound City," from the number of ancient mounds on her site; and we can well remember of seeing these mounds in her streets when a boy. We have relics that we dug out at the old Mound Market thirty years ago. Brackenridge has described these mounds, and Beck, in his *Gazeteer*, has a diagram, which Conant, in his "Foot-prints," has improved upon. One group was arranged as follows:



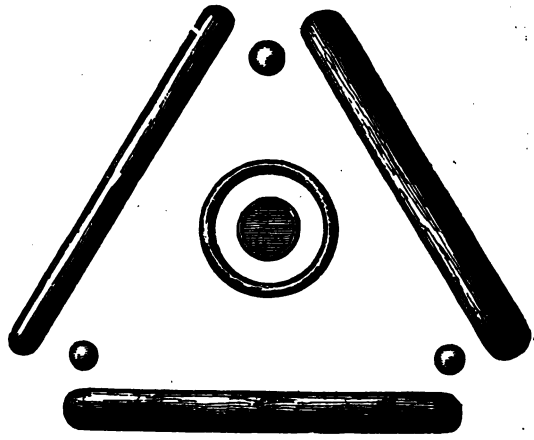
Group of Mounds once Occupying the Site of St. Louis.

There are seen here two of the large platform mounds so common in the American Bottom and this region,—truncated pyramids,—no doubt symbolic in their shape, and having an analogy with Eastern pyramids.

But we wish to call attention to another earth-work which is spoken of by the early writers, and is remembered by some old citizens as once occupying a part of the site of the city. It is spoken of by Conant. It is a triangular work, formed by three embankments enclosing a circle, precisely like that we have figured from the rock sculptures and paintings, the burial-vases, breast-gorgets and objects worn as talismans. There is the same all-seeing eye; but here the sacred circle is enclosed in a triangle:

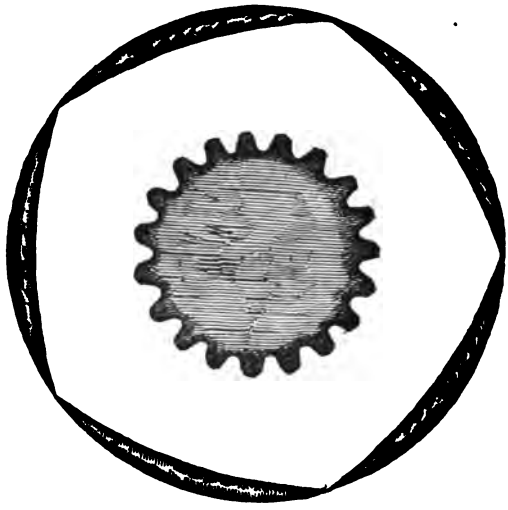
The work figured here is located in Iowa, on Root River, about twenty miles west of the Mississippi. The central mound, in the circle, is represented as being thirty-six feet in diameter and twelve feet in height. The long embankments which form the sides of the triangle were each one hundred and forty-four feet in length, and were respectively three, four and five feet in height and twelve feet

in diameter. The work like this once existing on the site of St. Louis was said to have been destroyed somewhere between 1835 and 1840.



All through Iowa, Wisconsin, Minnesota and the Northwest are seen almost innumerable emblematic and symbolic mounds, as if some offshoot, or outlying section of the great nation of Mound-Builders had carried to a remarkable degree the custom, not only of mound-making, but, very singularly, of making their mounds nearly all symbolic or emblematic in shape.

Pidgeon, in his interesting though somewhat vague "Traditions of Dacoodah," first brought them to the public notice; followed by Lapham's "Survey," which has given us much information on the subject. Still later, the Rev. Steven D. Peet, of the *American Antiquarian*, has done a great deal more by his illustrations of the Emblematic Mounds of Wisconsin.



Pidgeon gives a cut of an interesting one of these works on the Kickapoo River, Wisconsin. The central work, with radiating points, is sixty feet in diameter and three feet in height. This is enclosed by five crescent-shaped works having an elevation of two feet, and all presenting a level surface at the top. Pidgeon supposes this work to have been occupied during sacrificial festivities consequent upon the offering of human sacrifices to the sun,

which the central mound, with its rays, represented. He explored this mound; and after removing the soil from the top, the central portion, for the space of twelve feet in diameter, was found thickly studded with plates of mica set in white sand and blue clay. The observer adds that, "had this soil been removed with care, and the stratum beneath washed by a few heavy showers of rain, under the sun's rays it would have presented no unapt symbolical representation of that luminary."

It is very natural to suppose that the ancient Sun-Worshippers would sometimes shape their sanctuaries in the form of the great luminary. Mexicans and other peoples of this religion have been seen to offer human sacrifices in a blaze of fire upon their altars, Some of the Spaniards were compelled to witness this in the great Temple of the Sun in Mexico.

Homer says that at the celebration of the burial of Patroclus. Achilles sacrificed twelve Trojans by burning them to ashes. And a mound was raised over the remains of Achilles' friend in precisely the way mounds were made in the Mississippi Valley.



The Sacred Pentagon.

In the vicinity of this sun-mound in Wisconsin, the same author describes and figures another one, which he calls "The Sacred Pentagon." The outer circle in this work is twelve hundred feet in diameter.

Excepting the five angles forming the pentagon, there is a work almost exactly such as this in the lowlands on the point in Calhoun Co., Ills., where the Illinois river enters the Mississippi. The outer circle in this work is nearly a mile in circumference. The central mound, and the mound guarding the outer opening or gateway, are still intact.

Extensive earth-works, in the form of circles, squares, triangles, and other forms, are common in Ohio. We were reared, as were our parents before us, almost in sight of that great work on the Little Miami river, known as "Fort Ancient."

CHAPTER XIX.

WERE THE EARTHWORKS FOR DEFENSIVE PURPOSES?—THE TRADITION THAT AN ECLIPSE OF THE SUN CAUSED A CHANGE IN THE CEREMONIES OF THE MOUND-BUILDERS.—HISTORIC MOUNDS.—ILLUSTRATION OF A GROUP OF HIEROGLYPHIC OR RECORD MOUNDS.—THEIR DESCRIPTION.—CONTEMPORARIES OF MOUND-MAKERS.—THE GREAT NUMBER OF EMBLEMATIC MOUNDS IN WISCONSIN.—THE ADVANCE MADE BY SOME OF THE MOUND-BUILDERS TOWARD CIVILIZATION.—THE EMBLEMATIC MOUNDS OF WISCONSIN THE LAST OF THE RACE.—DID THE EFFIGY BUILDERS KNOW THE BUFFALO?—EFFIGY MOUND, REPRESENTING A MAN.—COMBINATION MOUND.—AN AMALGAMATION GROUP OF MOUNDS; RECITING HISTORY.—PIDGEON, THE AUTHOR OF "THE TRADITIONS OF DACOODAH," WHO HE WAS AND WHERE HE LIVED AND DIED.

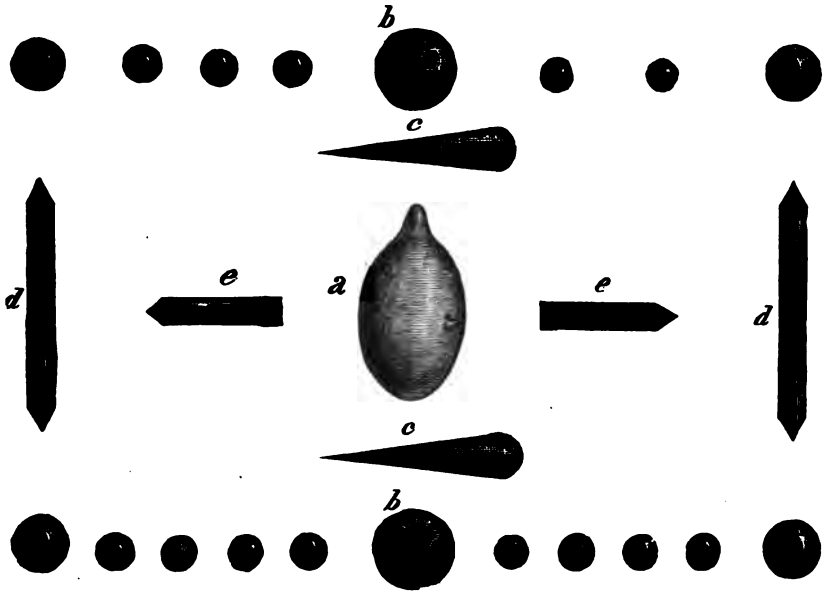
IT used to be thought that these earth-works were erected for defensive purposes, and some of the larger ones in Ohio may possibly have been utilized for such purposes. Some of those in Ohio, like Fort Ancient, occupy commanding positions; and were the embankments surmounted with well-planted pickets, with strong gates at the entrance-ways, they would have made strong positions against an enemy. But some of these works we have seen are contiguous to high bluffs, from which a warrior could have landed his arrows inside the intrenchments. From a military point of view some of the positions of these works are poor. Those we have figured were quite probably for religious or other ceremonial purposes.

Pidgeon gives a tradition, which he says he had from an old Indian prophet, which is very interesting, notwithstanding this sort of traditional lore is not very reliable. The Indian asserted that there was a change in their mode of burial in obedience to the command of the prophets, for the reason that, while the people were burning the body of a great and good chief, suddenly the sun, their chief deity, refused to shine, although there was not a cloud in the sky. This was taken as a sign of disapprobation of the custom, which gradually ceased thereafter.

It is very easy to believe that incidents like this might make such an impression on a people as to change even a national custom. Especially would it impress a people who had met together to burn the dead body of a great and good ruler, offering his remains to the sun, if the sun should disappear, or be eclipsed, in a cloudless sky.

Even in this advanced age, our people have not entirely rid themselves of superstition, quite possibly inherited; and if an eclipse was to occur to-day, unheralded and unannounced, consternation would seize upon the larger part of us.

The same author gives a description and illustration of an interesting group of mounds situated on the north side of the St. Peter's river, about sixty miles above its junction with the Mississippi, in what was then the Territory of Minnesota. He describes it thus:



The central embankment, in the form of a tortoise, is forty feet in length, twenty-seven in breath, and twelve in perpendicular height. It is composed in part of yellow clay, brought from some distant place. The two pointed mounds north and south of this are formed of pure red earth, covered with alluvial soil. Each is twenty-seven feet in length and six in height at the largest end, gradually narrowing and sinking at the top until they terminate in a point. The four corner mounds were each twelve feet high and twenty-five feet in diameter at the base. The two long mounds on the east and west sides of the group were sixty feet in length, twelve feet in diameter, and eight feet high. The two mounds on the immediate right and left of the central effigy were twelve feet long, six feet wide and four feet in height. They were composed of sand mixed

with small bits of mica to the depth of two feet, and covered with white clay, with a layer of surface soil on the top. The large mound in the centre, south of the effigy, was twelve feet high and twenty-five feet in diameter, composed of a stratum of sand two feet in depth, covered with a mixture of sandy soil and blue clay. The similar work on the north of the tortoise was of like formation, four feet high and twenty-two feet in diameter.

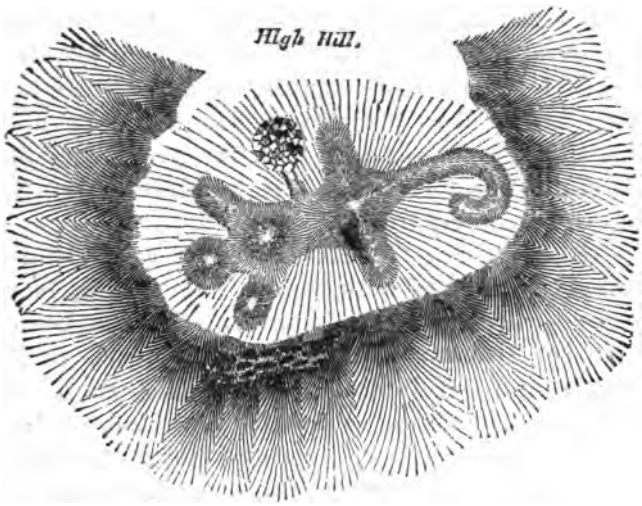
We agree with Mr. Conant [1] when he says that "this cluster of mounds, twenty-six in number, presenting such variety of forms and peculiar arrangement, and which must have required so much time and labor for their construction, must convince the observer that they were intended to perpetuate some history, and that each of the hieroglyphic symbols of which the group is composed had its special significance, which was well understood by the builders and [maybe] their cotemporaries."

And since it may occur to many of our readers to ask why we speak of cotemporaries, we will simply say that it is now a common belief among archæologists that America has been inhabited by people coming from more than one source; yet during the age in which the Mound-Builders were paramount, there were, as we have before remarked, outer branches or colonies, lacking very much the advancement of the mother and central stock, that carried symbolism to the extreme, as seen in the earth-works of Wisconsin and the Northwest.

The emblematic mounds of Wisconsin are very puzzling, and have awakened more curiosity and elicited more unsatisfactory speculations than any class of earth-works. There is hardly a desirable alluvial bottom, or a piece of arable upland in this region, but that it has been occupied before. So with the sites of the cities and towns along the Mississippi, in Illinois, Missouri, Arkansas and Tennessee, once preoccupied by the Mound-Builders, —a people so much advanced as to live by agriculture mainly, and reside in large communities, leaving special evidence of elevation in their really artistic ceramics, showing an advance toward refinement, as well as in their great earth-works at Cahokia and elsewhere, showing an advance in the concentration of governmental powers and national control, even though it may have been through a blind religious bigotry. Any religion, in the early stages

[1] "Footprints of Vanished Races," p. 19.

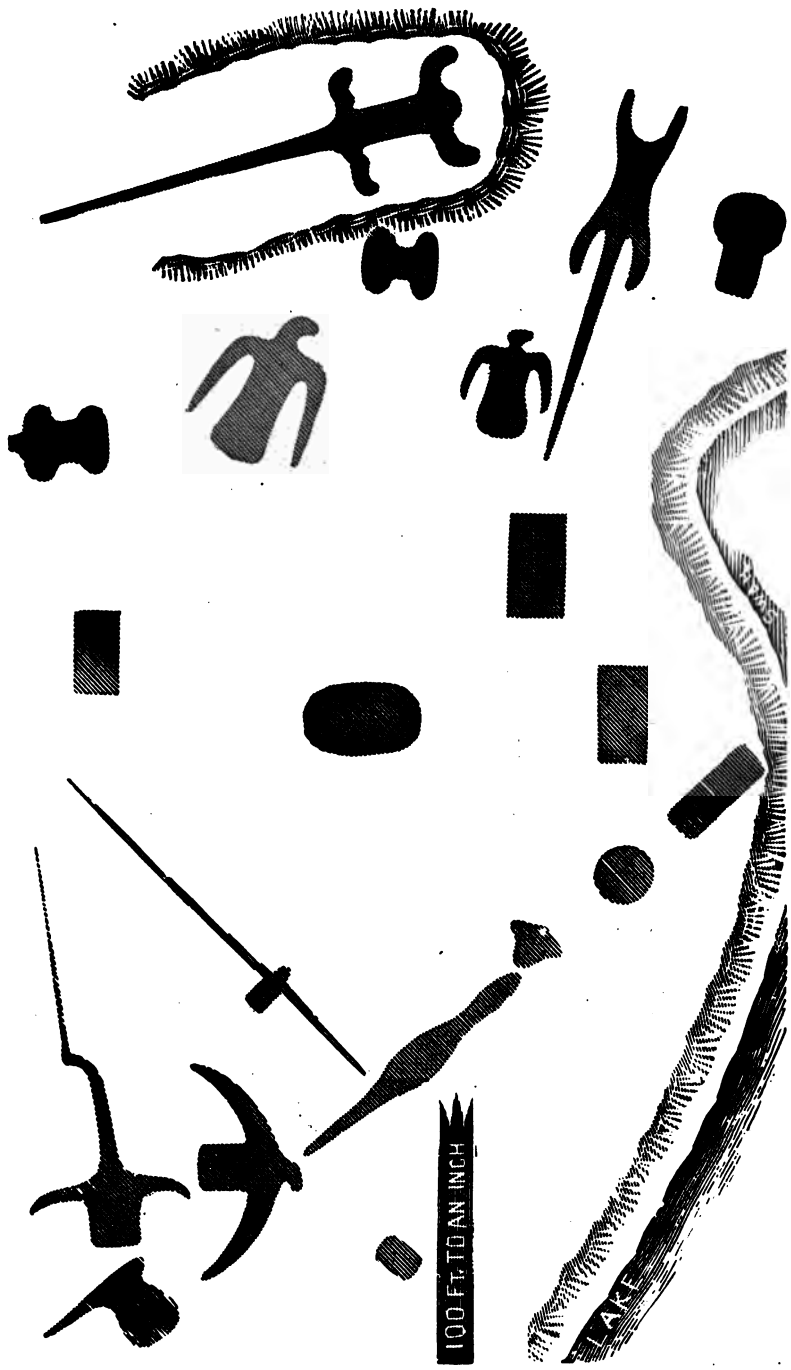
of the history of mankind, has been for advancement, simply because it furnished a means of control, a law. So the earth-works of the Northwest show the beginning of an advancement in this line, commencing later, and being very much weaker. This colony, priest-led and given up almost wholly to the work of emblematic representation, flourished a while, probably by consent or acquiescense of the invader, until the end came, and the savage red Indian occupied the whole land; which was divided between bands hostile to one another.



Emblematic Mound in Wisconsin.

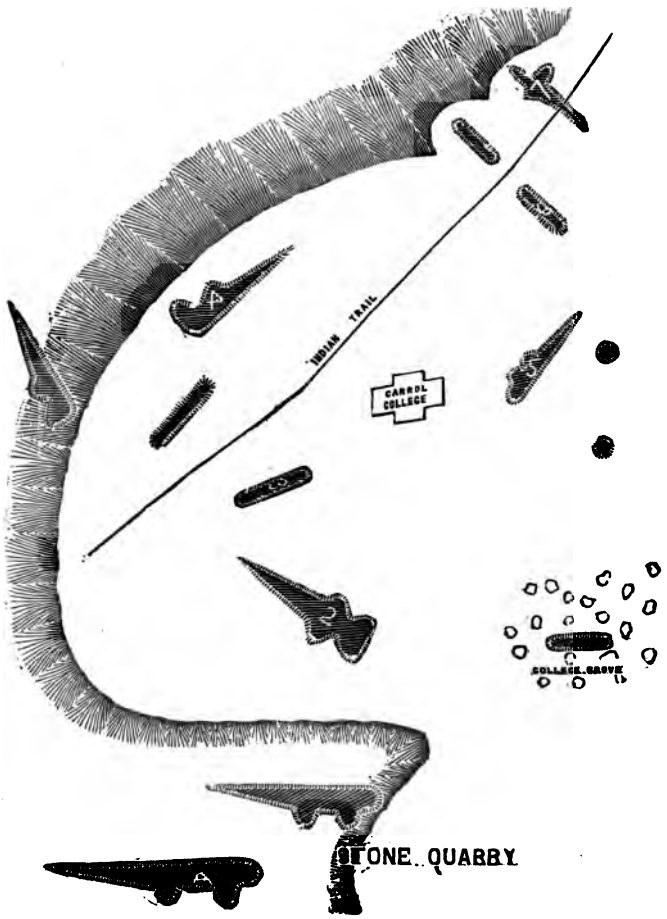
Somehow we have received the impression that the builders of the emblematic mounds of Minnesota were the last of their race and kind. We have, during the last thirty years, explored mounds from Lake Winnepeg to Florida, and the impression grows with us that the most recent mounds are in the Northwest. It may be yet shown that some of these people were endeavoring to retreat in the direction from whence they came.

Although the emblematic mounds of Wisconsin, like the mound pipes of Ohio, Indiana and Illinois, together with the mound pottery of Illinois, Missouri, Arkansas and Tennessee, give an almost complete representation of the animals and birds of the region, we have as yet been unable to recognize any of those preglacial, or glacial creatures, such as the mastodon and elephant, whose remains are so common in the glacial clays. Emblematic mounds representing these proboscidians probably exist only in



Emblematic Mounds in Wisconsin.—Scale, 100 feet to an inch.

the imagination. Elephant pipes, like those of Davenport, are quite probably frauds by which new and credulous investigators have been led astray. We have had an opportunity to examine these pipes carefully. We make it a point, as a naturalist as well as an archæologist, that in the emblematic mounds of Wisconsin we have the only evidence—and this, even, is not beyond question, since the forms are certainly vague,—that our Mound-Builders knew the buffalo, an animal of such value and importance to the later Indian.

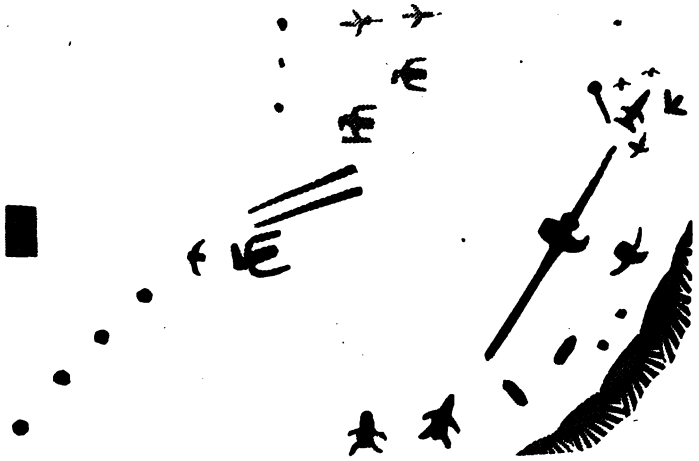


Effigies on College Campus at Waukesha, Wis.

The college at Waukesha, in Wisconsin, is built upon the site of an ancient Mound-Builder's town, and all about it are the curious earthen effigies. We give an illustration.

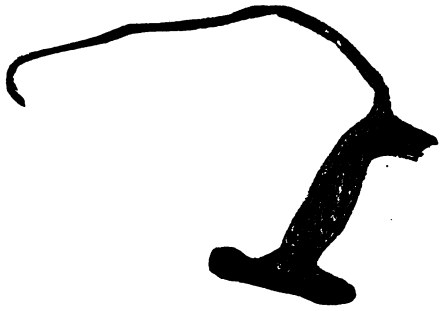
In this group the effigy mounds, as seen, are kept carefully preserved and protected from any injury, as mementoes of one of the ancient races that once inhabited the region.

At Lake Monona is another interesting group, showing the effigies of birds and animals, together with an example of the parallel em-



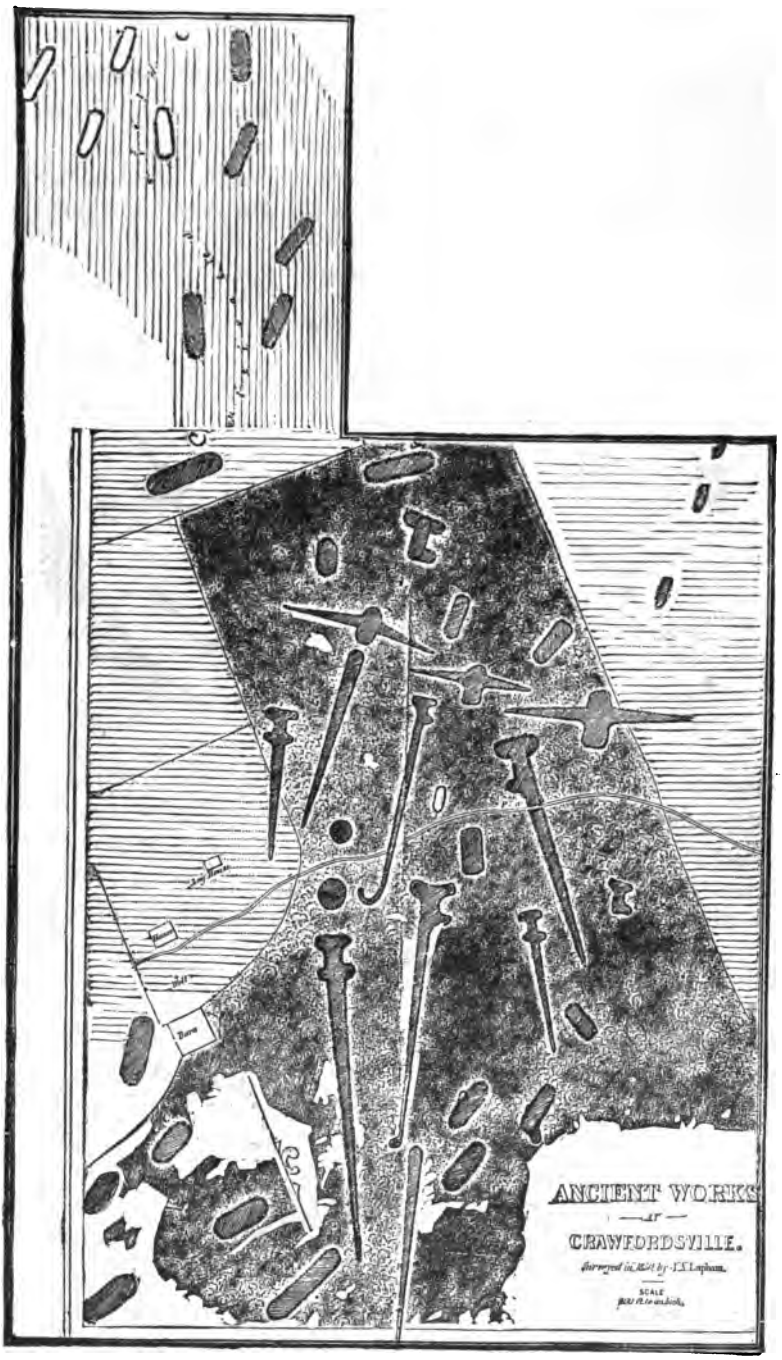
Effigy Mound at Lake Menona, Wis.

bankments of which we have spoken in a preceding chapter. We are indebted, for permission to use these fine plates of some of the effigy mounds of Wisconsin, to our friend, the Rev. Steven D. Peet, Editor of the *American Antiquarian*, and well known, not only in America but in Europe, as an antiquarian and ethnologist.



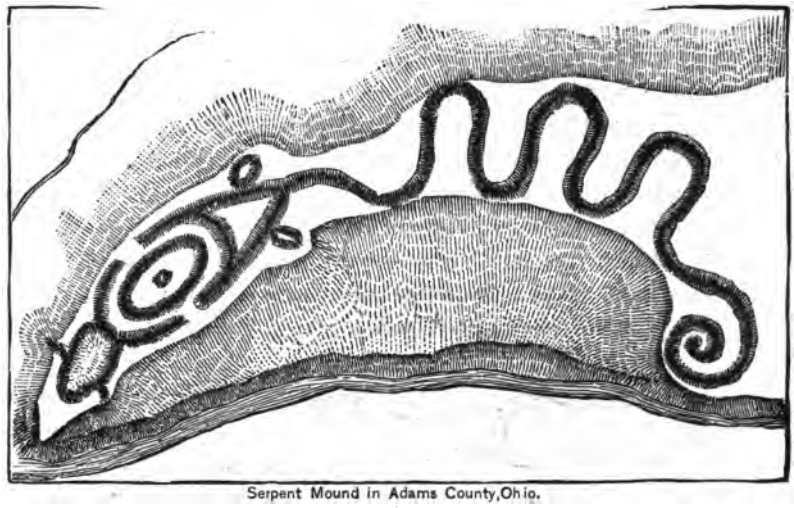
One of a Group of Mounds near the Wisconsin River.

On the following page we give another illustration of the emblematic mounds at Crawfordsville, on the Fox River, in Wisconsin. In this cut can be seen the forms of birds and animals and other


ANCIENT WORKS
AT
CRAWFORDSVILLE.
Surveyed in 1838 by I.T. Lapham.
SCALE
400 Feet to an Inch.

objects, among which are the platform mounds so common in the American Bottom.

While the very great majority of the emblematic mounds are in Wisconsin and the Northwest, there are a few in Ohio, Illinois and some of the Southern States. One of the most curious earthen structures is situated on a ridge in Adams Co., Ohio. This is the well-known Serpent Mound, being in the form of a serpent, which seems to be swallowing some object of oval form. This earth-work is situated on the top of a high hill or ridge, and is one of the well-known ancient earth-works of Ohio. It is nearly a thousand feet in length, and is undoubtedly intended to represent a serpent in the act of devouring some object.



Serpent Mound in Adams County, Ohio.

Efforts have been made by some archæologists to prove that serpent-worship was at one time common among the Mound-Builders. Our own explorations in the field have not been productive of any facts to convince us that this was true. Representations of serpents on the pottery, on pipes or other objects, or in the shape of mounds, are comparatively rare, and not nearly so common, in any of the relics we have seen, as those of other animals. There are probably a score of turtles represented where there is one serpent; yet we do not think of the turtle as a sacred symbol, or as an object of worship among the Mound-Builders.

The illustration on page 91 shows one of the earthen representations of the human form, with a large mound between its feet.

These human effigies are sometimes a hundred feet or more in length, and show the body in various positions or in connection with some other effigy.

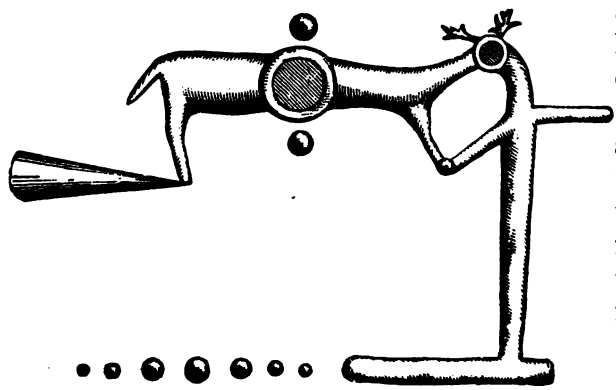
Here is another, seeming to be a combination of forms, it may be of bird and beast. This was one hundred and eighty feet in length and forty-four in its greatest breadth. The whole was composed of a reddish clay, covered over with black alluvium to the depth of a foot, most probably the result of the decay of vegetation on the surface during the lapse of a considerable number of years, certainly some centuries.



Bird and Beast.

Birds are a common feature of these effigies, and various attitudes of the different birds are depicted—eagles and other birds of prey, as shown by their hooked beaks; water-fowl; snipes with their long bills, some in full flight and others with wings closed or partly extended. Animals of almost all descriptions native to the locality are shown in all sorts of postures, some singly, and others in droves or processions. Some of these are combined with the human form, as is shown in the cut below.

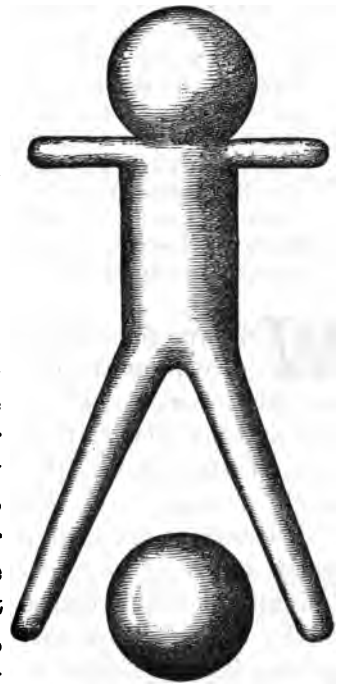
This curious group is one of the most complicated and enigmatical found. The part of the figure representing the beast is one hundred and eighty feet in length. The human effigy perpendicular to it is one hundred and sixty feet long. On either side of the upper and horizontal figure, is a truncated mound eighteen feet in diameter and six feet in height. The summits of both are flat. The representations of horns, which are very distinct, are of different dimensions. The main stem of the front horn is eighteen feet in length; the one which inclines backward is twelve. The longest antlers are six feet long, and the shortest, three. At the foot of the human effigy is attached an embankment, running parallel with the hori-



Amalgamation Group.

zontal figure, eighty feet in length, twenty-seven in diameter, and six in height. On a line with this is a series of conical mounds, the largest of which is also twenty-seven feet in diameter and six in height. From this the others diminish on either side, and terminate in mounds eighteen feet in diameter and three in height.

This is one of the best of the curious effigy mounds of Wisconsin; the meaning of which, as given by Pidgeon, is so plain, and withal so very natural, that we give it. He calls it an amalgamation group, and says it was designed as a public record and seal of the amalgamation of two nations or tribes, the Elk and the Buffalo; which is expressed in the union of the heads and the joining of the foot of one with the foot or hand of the other.



Human Effigy (See p. 89).

Mr. Pidgeon, the author of the "Traditions of Dacoodah," from which work we have taken the last and two preceding illustrations, was an old gentleman of very unobtrusive and retiring disposition, who resided for a number of years, in the later part of life, in Calhoun Co., Illinois, where he died. We made his accquaintance but a short time before his death. He seemed, from what we saw, to be modest and truthful, though somewhat imaginative; and we may say we never had reason to doubt his sincerity. In fact he was quite religiously inclined. He spent years of his life among the Indians, but seemed not to care for intimate acquaintance among his white neighbors, and not to have been personally known among archæological writers and investigators of the day. We make this statement because we have received numerous letters of inquiry as to our acquaintance with the author of that most interesting work, "*The Traditions of Dacoodah.*" It seems that the obscurity of the author impaired the value of the work. Neither can we say that we could vouch for its reliability. Nor do we agree with him in his theories. Yet we believe his work has both truth and merit in it.

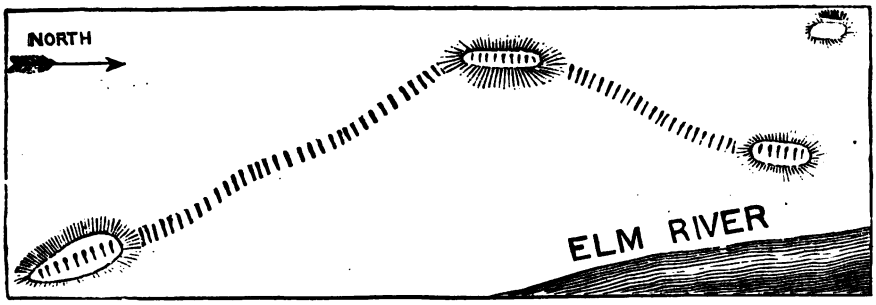
CHAPTER XX.

THE EMBLEMATIC MOUNDS OF WISCONSIN NOT SO OLD.—SMALL MOUNDS NUMEROUS IN THE NORTHWEST.—THE MOST MODERN MOUNDS IN DAKOTA.—MOUNDS CONNECTED BY CURIOUS PATHS MADE OF BUFFALO BONES.—EXPLORATION OF SOME OF THESE IN THE DAKOTA VALLEY.—THE AGE OF THE MOUNDS.—THE AGE OF THE BONE PATHS.—RELICS FROM THESE MOUNDS.—THE SHAPE OF THE SKULLS.—THE MANY DIFFERENT-SHAPED SKULLS.—LONG SKULLS.—SMALL SIZE OF THE SKULLS.—A SINGULAR HUMAN SKULL FROM A CAHOKIA MOUND.—COMPRESSED SKULLS.—THE NEANDERTHAL SKULL AS COMPARED WITH SOME OF OUR MOUND-BUILDERS'.—A SINGULAR SKULL FROM A MOUND IN MISSOURI.—SKULLS FROM THE POTTERY MOUNDS.—BROAD, THICK SKULLS.—UNEQUAL SIZE OF THE LOBES.—EGYPTIAN SKULLS.—CURIOUS STORY BY HERODOTUS.

WE have remarked that we have reason to believe the emblematic mounds of Wisconsin to be of more recent date than the earth-works of Ohio and those of which we have written, in Illinois and the Mississippi Valley below. The collections we have seen, from Wisconsin and the region about, are not rich in remains. One single mound in the American Bottom would possibly reveal more indications of extensive acquaintance, in which barter, trade and really a sort of aboriginal commerce is plainly perceptible; many indications of this character, together with the massive proportions of the earth-works, evidencing a strength in the people that was lacking in Wisconsin.

Small mounds are numerous in the Northwest; and in our excavations in them we somehow received the impression that they were made by a people who had survived some greater condition in the past. In fact the most modern mounds we have noted are in the Northwest, in Dakota. Along the streams in the valley of the Dakota or James river, mounds are common, and what is most singular, we have seen groups of them paved over with bones of the buffalo. A few years ago, our attention was called to these mounds by some surveyors we met in St. Paul, who were laying out the township lines in the valley of the James river, then a complete wilderness of prairies. Returning with the surveyors, we spent many days exploring the mounds. The mounds differed but little from those of Illinois and Missouri in shape and appearance. They were from six to twelve feet in height and oval in shape. But what was most singular was the paths of bone connecting one mound

with another. These paths were made of the leg-bones of the buffalo, which are very heavy and strong. The bones were laid side by side, touching each other, and imbedded in the ground so that only the upper surface was exposed; and on the gentle slopes of the prairie, for miles away, we could plainly discern the slim white lines from one mound to another. The bones had been placed neatly and with some precision, and were firmly imbedded in the hard earth, which was a sort of cement of gravel and soil. One of these paths was nearly a mile in length, imbedded in the hard gravel, and as we walked over it there was a metallic ring to our footsteps and not a



Paths of Buffalo Bones in Dakota.

single bone was displaced. Improbable as it may seem, we were impressed with the seeming fact that these paths had been made many years ago; how long, of course, we could not tell, but certainly not beyond the age of a man. Our explorations in the mounds, which were difficult of excavation on account of the dry, cemented nature of the gravelly soil, revealed the remains of the persons buried in the mounds. The skulls, of which we brought away a number, were very much like those of the present Indians. There was an axe of diorite, and another of green-stone, both quite small and rude; several rude flint arrow-points, quite similar to those found in Illinois; but not a single thing to awaken any suspicion of connection with the whites.

Only the singular and pretty paths of the buffalo-bones indicated a modern origin. These might have been placed there—and probably were—long years after the mounds were built. But they showed to me one fact conclusively: that some one in recent times had an interest in them and perhaps a knowledge of their history, and could have, possibly, given some information in regard to the builders.

We have the skulls referred to; and they seem to have a sort of modern Indian look; but we have found so many skulls in mounds, of such a variety of types, and skulls in individuals present such a difference of outline, size, etc., that we hopelessly gave up the attempt to classify them some time ago.

In our collection of more than two hundred of human crania from the mounds, we have all the different types, and have been unable to select any special one that we could with confidence denominate as peculiar to these ancient people. We have found in the same mound, high skulls and low ones, long, narrow ones, and short, broad ones, to use the more common and in some respects more sensible terms.

From some of the larger and older mounds near the mouth of the Illinois River we have taken a number of long, narrow skulls, not numerous enough to make a ruling type; but they were in large works, and from the surroundings must have belonged to persons of importance, perhaps rulers among their people.

We have never taken a skull from a mound, neither have we seen one known to be the remains of a Mound-Builder, any larger than an average European skull of the present day. Our experience is that our mound skulls have a smaller average in size as compared with the European.

One of the largest skulls we have seen, from a mound, was in the Cahokia group of mounds. It is figured in our "Antiquities of Cahokia." With it were found some splendid burial vases, ornaments and other objects, that induced us to believe its owner must have been a chief or ruler; at least a person of note. He had been a large man, perhaps six feet in height. His skull, which I preserved, by drying with care and soaking in a solution of gelatine, was of good size, unusually thick and strong. It was chiefly remarkable, however, for its shape. The whole upper part of the skull was flattened, and it bulged out in lobes behind on either side. The forehead was almost annihilated, being nearly level with the back part, like the skull of a beast. The ridges over the eyes were enormous, like great battlements over the deep cavities of the eyes, which must have been large. In this respect it most resembled the celebrated Neanderthal skull. We say it was flat on top. We perhaps could better describe it by saying horizontal or level; for it was not in the full sense flat, as though it had been formed in that way by having a piece of board bound on top of the head, after the

fashion of the modern Flat-Head Indians. It was gently rounded, and I was unable to decide that the form of this singular skull had been produced artificially. The under jaw was large; the teeth were strong, large and deeply imbedded in their sockets, although not all sound; the Mound-Builders, as a rule, seeming not to have had sound, perfect teeth. Nor did they always articulate, as is the case with most of the later Indians.

This old Mound-Builder,—for the teeth show he lived to mature age,—must have presented a singular appearance when living, with his great head, and brain of more than average size among his fellows, a fitting fellow for him of Neanderthal. And how they could have glared at each other! How savage he was of course we do not know; perhaps not like a savage at all; for he lived, as his surroundings would indicate, like those from the tombs of Egypt, amid government, religion and some degree of art, if we consider the pottery to show the latter. We can not believe he was an idiot, notwithstanding the shape of his head.

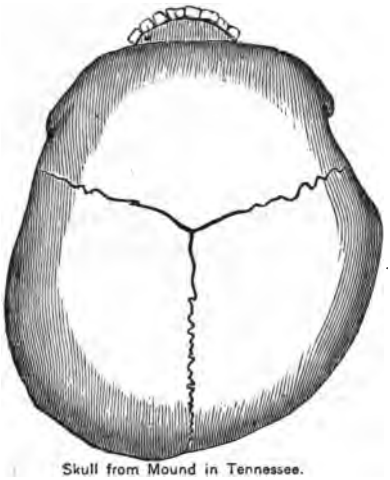
We have found a number of skulls of this shape, not so large nor so pronounced. We figure one from a mound in Missouri. The skull was so much decayed as not to be preserved in perfect condition, yet still the upper part is sufficiently shown to give one an idea of the shape. This skull also gives indications of having once held a large brain. Although not so heavy and strong as the one previously described, in its shape it is remarkably like the old European cave-dweller's cranium from the cave of Neanderthal.



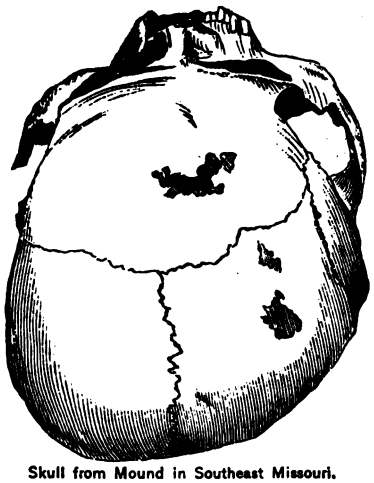
Skull from Missouri Mound.

While we have found a number of crania of this form, and have seen others like them in the cabinets of collectors, we are not quite prepared to consider these long skulls as a distinctive type that might be used to show a national affinity. There is, however, another class of skulls very much more numerous, that may be a type, if their numbers may be used to indicate such. They are common in what we call the pottery mounds,—for all mounds do not contain pottery,—but more especially in this class if found in the central and southern Mississippi Valley. These are short, broad

skulls, like those shown in the following engravings, from mounds in Illinois, Missouri, Arkansas and Tennessee. This form of skull is the prevailing one, and the remains are found in prodigious numbers. Of course there is a great variety in the type; but they may be described generally as short, broad skulls. In taking from the mounds these crania, one soon learns to distinguish those of the men from the women. Those of men are generally much more pronounced in character, while the female skulls are smaller and more symmetrical, being mostly smooth and without any very definite protuberances. Many of these skulls have one of the posterior lobes much larger, and projecting as shown in the engraving. The left lobe is



Skull from Mound in Tennessee.



Skull from Mound in Southeast Missouri.

generally the larger. It may have been caused by some peculiar manner in which the child was carried or given nourishment. These unequal lobes in the Mound-Builders' skulls are so common as to amount to a characteristic. As before remarked, these skulls are below the European average of to-day. We have observed that many of them are of unusual thicknes; some of them remarkable in this particular. We are forcibly reminded, in this connection, of a remark of that wonderful historian, Herodotus, who wrote about 300 years B. C. He is quoted by Wilkinson, in describing the Egyptian skulls, which seem to differ little from those we figure. Herodotus says: "I became acquainted with a remarkable fact, which was pointed out to me by the people living near the field of battle where the Egyptians and the army of Cambyses fought; the bones of the killed being still scattered about, the Persians on one side and the

Egyptians on the other. I observed that the skulls of the former were so soft that you could perforate them with a small pebble, while those of the latter were so strong that with difficulty you could break them with a large stone. The reason of which, as they told me, and I can easily believe it, is that the Egyptians, being in the habit of shaving their heads from early youth, the bones became thickened: and hence, too, they are never bald, for certainly, of all countries, nowhere do you see fewer bald heads than in Egypt. The Persians, on the contrary, have soft skulls, in consequence of their keeping the head covered from the sun and enveloped in soft caps. I also observed the same of those who were killed in the battle between Archæmenes and Suarus the Lybian." [1]

Numbers of skulls have been taken from the singular effigy mounds of Wisconsin. We give an illustration of one of these, taken, it is said, from an excavation of considerable depth in an effigy mound at Indian Ford, Wisconsin, by Dr. W. P. Clark. This skull has nothing in its shape that is very remarkable.



Skull from an Effigy Mound in Wisconsin.

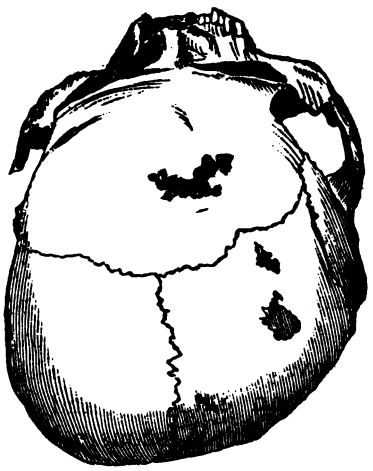
In our collection of two hundred skulls from the mounds, the majority of them have nothing remarkable to distinguish them from other human crania. There are a few skulls that are of very peculiar shape, and we think these are most talked of and commented upon by collectors; and writers on this subject usually select an odd skull for a type. There are many errors promulgated in this way. An archæologist, or any scientist who seeks only for objects to prove his theory, is the fellow who makes the trouble generally for the true investigator.

There is no doubt but that, from a large collection of our mound skulls, something might be learned, and possibly a type defined. The skulls from the mound in Dakota, as we have remarked, resemble those of our later Indians. The illustration to the left on the next page shows the form of one of these Dakota mound crania. The red

[1] Vol. 1, p. 328, "Ancient Egyptians."

Indians, in fact, do seem to have a peculiar type of skull, and their skulls are found almost everywhere along the streams in the valley of the Mississippi; this people having a custom of burying their dead in shallow graves on the bluffs and ridges of the highlands adjacent to the rivers. These skulls are well described by Dr. Foster.[1] "The brain case is box-like, with the corners rounded off;





the occiput extends up vertically; the frontal ridge is prominent; the cerebral vault is pyramidal; the interparietal diameter is great; the supercilliary ridges and zymatic arches sweep out beyond the general line of the skull; the orbits are quadrangular; the forehead is low; the cheek bones high; and the jaws prognathous.

"His character, since first known to the white man, has been signalized by treachery and cruelty. He was never known to voluntarily engage in an enterprise requiring methodical labor; he dwells in temporary and movable habitations; he follows the game in their migrations; he imposes the drudgery of life upon his squaw; he takes no heed for the future. To suppose that such a race threw up the earth-works and symmetrical mounds on our river terraces, is as preposterous, almost, as to suppose they built the Pyramids of Egypt."

1 "Prehistoric Races of America."

CHAPTER XXI.

SIMILARITY OF THE MOUNDS OF AMERICA AND OTHER COUNTRIES.—SUPERIORITY OF THE MOUND-BUILDERS OVER THE INDIANS.—THE HEROES OF TROY.—AMERICA'S DEAD NATION WITHOUT A HISTORY.—EXTENSIVE ACQUAINTANCE AND TRADE OF THE MOUND-BUILDERS.—MOUNDS COMMON OVER THE WORLD.—AN EGYPTIAN AND AN AMERICAN LANDSCAPE COMPARED—PYRAMIDS IN THE UNITED STATES.—MOUNDS ON THE CAHOKIA BOTTOM.—THE GREAT PYRAMID OF CAHOKIA.—ITS DESCRIPTION.—THE AMERICAN BOTTOM AND ITS ANCIENT RUINS.—A DESCRIPTION OF THE MOUNDS IN 1811.—THE GROUP OF MOUNDS SURROUNDING THE PYRAMID.—ORIGIN AND USE OF THE GREAT CAHOKIA MOUNDS.—THE TEMPLE OF THE SUN IN MEXICO, AND THE MOUNDS SURROUNDING IT.—THE SACRIFICES BY THE MEXICANS.—ARTIFICIAL PONDS ABOUT CAHOKIA.—THE SIZE OF CAHOKIA COMPARED WITH THE PYRAMIDS OF EGYPT.—PUZZLING POINTS OF ANALOGY.—THE SACRED SHELLS FROM CAHOKIA.—THE REVERSED SHELLS OF BUDDHA FOUND IN OUR MOUNDS.—OUR PYRAMIDS STRAIGHT WITH THE POINTS OF THE COMPASS.—DID THE INDIANS KNOW THE DIRECTION FROM STARS?

HOWEVER satisfactory the history of symbolism in Europe and Asia may be, yet to the student of Archæology it may fail to account for the presence of these symbols on this continent. We are constantly puzzled by these analogies, although they serve to make us more observing in our researches.

Like Schliemann, we commence digging again; and it is to be noted how strangely similar are the results of one of these days of labor, notwithstanding the distance that intervenes. Schliemann is digging in a mound in full view of the Hellespont and the Ægean Sea, under the official eye of a Turk. We are digging in a mound on the banks of the Mississippi, on another continent, until a comparatively recent date unknown. When discovered by Columbus it was inhabited by a race of people without any history; in the Valley of the Mississippi these people were living on the ruins of still another people, of whom they had no knowledge whatever. For it is an established fact that our American Indians have no knowledge of their own origin, nor of the fate of the Mound-Builders who preceded them. We know that a strong effort has been made, worthy a better cause, to establish the fact that our American Indians are descendants of the Mound-Builders. But even if this were proven, which we are loth to believe, we do not see how it affects our American archæology. We still have the same question, Who were the Mound-Builders?

The later Indians, when discovered by Columbus, were called savages, because they had none of the arts and were almost if not quite without an established government or religion. That the Mound-Builders were a superior people we think is clearly proven in the remains of their extensive earth-works, which quite clearly indicate an established government and a religion. Also, from evidences before us, we believe they had some knowledge of their own origin and history. It is indeed singular that the Indians of this country should have no knowlege whatever of the fate of the Mound-Builders, especially so if the latter were their forefathers.

Schliemann, in his trenches on the mound of Hissarlik, is searching for the tombs of the heroes of Troy. Their story has been told by a historian whose soul was inspired with the harmony of the poet; and who, almost as proud of his powers of description as he was of his heroes and heroines, passed them in procession back and forth before us, as though he would have us know each one personally. No heroes, perhaps, in all the world are better known than Priam and his valiant sons, and those with whom they fought on the Trojan plain three thousand years ago.

In our trenches in the mounds on the bank of our great river, we are simply searching for a bit of history. Our heroes have no name. The Mound-Builder kings, if such there were, have gone down into the tomb enveloped in the silence of oblivion. A dead nation without a history. No, not wholly without a history, because here are his weapons and implements of stone; his agricultural implements and a great number of tools, all of stone; these tell us he lived in the stone age. There are pieces of iron ore, and some of lead, but he did not know even how to melt the lead ore, but used it as a stone. The only metal he knows is the soft native copper, which he pounds into shape for a weapon or an ornament. There are beautiful sea-shells, mica from the far eastern mountains, obsidian from the distant regions in the West; so that we know he had quite an extensive acquaintance; probably travelled far up and down the river, and had a sort of commerce. Is that all?

No! There are some pretty sculptured stone objects that we are satisfied are sacred and devoted to his religion; and, last but not least, there are the beautiful burial vases of tempered clay, that bear the most vivid and artistic devices; which have such a familiar look, that, without reflecting, in our ecstacy we exclaim, "Why, we know him!" Before we knew his family we had nearly claimed him

kinsman, because our forefather, we know, in the distant past, was girt with skins, and carried a stone axe for a weapon, though he afterward wore a helmet and strode over the field before Ilium, and may be had a tilt with some of Priam's sons, in the gloaming, thirty centuries ago.

All over the world primitive men have made earthen mounds over their dead; and Homer, describing the burning of the body of Hector and the building of a great mound over the ashes, describes just what was practiced by our American Mound-Builders. Many of the customs of the Mound-Builders were similar to those of the Greeks, and which are traced through them back to the Egyptians. One usually recognizes an Egyptian landscape by seeing in the background a pyramid; and Egypt and the pyramid seem to be inseparable. Yet America has many pyramids. They are common in Mexico,[1] and some of them rival in size those of Egypt. They are also found in Central and South America, and some of these are faced with stone and have all the peculiarities of the Egyptian structures, even to the singular openings to chambers within.

There are many pyramids in the United States, regular, perfect pyramids of earth, and not faced with stone. One of the largest of these is situated on the level plain of that rich piece of low land bordering the Mississippi opposite the city of St. Louis, and known as the American Bottom. In the midst of this plain, where its width is ten to twelve miles, there are still to be seen the remains of a Mound-Builders' city, that in the majesty and extent of its ruins will vie with any in the world. In the centre of a great mass of mounds and earth-works there stands a mighty pyramid, whose base covers nearly sixteen acres of ground. It is not exactly square, being a parallelogram, a little longer north and south than east and west. Some thirty feet above the base, on the south side, is an apron or terrace, on which now grows an orchard of considerable size. This terrace is approached from the plain by a graded roadway. Thirty feet above this terrace, and on the west side, is another, much smaller, and on which are now growing some forest trees. The top, which contains an acre and a half, is divided into two nearly equal parts, the northern part being four or five feet the highest. The height of this structure is about one hundred feet, from actual measurement. On the north, east and south the struc-

[1] Foster's "Prehistoric Races," p. 186.

ture still retains its straight side, that probably has changed but little since the settlement of the country by white men, but remains in appearance to-day the same as centuries ago. The west side of the pyramid, however, has its base somewhat serrated and seamed by ravines, evidently made by rain-storms and the elements. From the second terrace a well, eighty feet in depth, penetrates the base of the structure, which is plainly seen to be almost wholly composed of the black, sticky soil of the surrounding plain. It is not an oval, or conical mound or hill, but a pyramid with straight sides.



Longitudinal Outline of the Great Cahokia Mound.

Although we have made a complete survey of these mounds, and given the results in our "Antiquities of Cahokia," we cannot do better here than give the interesting description by Brackenridge, who visited the locality in 1811, when the plain was yet a sea of waving wild grass, and not under cultivation. Brackenridge says:

"To form a more correct idea of these ruins, it will be necessary to give the reader some view the tract of country in which they are situated. The American Bottom is a tract of rich alluvial land, extending on the Mississippi for about eighty miles (from Kaskaskia to Alton) in length and with an average of five in breadth; several handsome streams meander through it; the soil is of the richest kind, and but little subject to the effects of the Mississippi floods. A number of lakes are interspersed through it, with fine high banks; these abound in fish, and in autumn are visited by millions of wild fowl.

"There is no spot in the western country capable of being more highly cultivated, or of giving support to a numerous population,

than this valley. If any vestige of ancient population were to be found, this would be the place to search for it; accordingly this tract, as also the tract on the western side, [where is now the city of St. Louis] exhibits proofs of an immense population. If the city of Philadelphia were deserted, there would not be more numerous traces of human existence.

"The great number of mounds, and the astonishing quantity of human bones dug up everywhere, or found on the surface of the ground, with a thousand other appearances, announce that this valley was at one time filled with habitations and villages. The whole face of the bluff, or hill, which bounds it on the east, appears to have been a continued burying-ground. But the most remarkable appearances are the two groups of mounds, or pyramids, the one about ten miles above Cahokia, the other nearly the same distance below it, which in all exceed an hundred and fifty, of various sizes. The western side also contains a considerable number.

"A more minute description of those above Cahokia, which I visited in 1811, will give a tolerable idea of them all. I crossed the Mississippi at St. Louis, and after passing through the wood which borders the river, about half a mile in width, entered on an extensive plain. In fifteen minutes I found myself in the midst of a group of mounds, mostly of a circular shape, and, at a distance, resembling enormous haystacks scattered through a meadow. One of the largest, which I ascended, was about two hundred paces in circumference at the bottom. The form was nearly square, though it had evidently undergone some alteration from the washing of rains; the top was level, with an area sufficient to contain several hundred men. The prospect from this mound was very beautiful, looking toward the bluffs, which are dimly seen at the distance of six or eight miles, the bottom at this place being very wide. I had a level plain before me, bounded by islets of wood and a few solitary trees: to the right the prairie is bounded by the horizon; to the left, the course of the Cahokia river may be distinguished by the margin of wood upon its banks and crossing the valley diagonally S. S. W. Around me I counted forty-five mounds or pyramids, beside a great number of small artificial elevations. These mounds form something more than a semi-circle, a mile in extent, the open space on the river.

"Pursuing my walk along the bank of the Cahokia, I passed eight others in the distance of three miles, before I arrived at the largest assemblage. When I reached the foot of the principal mound, I was

struck with a degree of astonishment not unlike that which is experienced in contemplating the Egyptian pyramids. What a stupendous pile of earth! To heap up such a mass must have required years, and the labor of thousands. It stands immediately on the bank of the Cahokia, and on the side next it is covered with lofty trees. Were it not for the regularity and design it manifests, the circumstance of it being on alluvial ground, and the other mounds scattered around it, we would scarcely believe it to be the work of human hands.

"The shape is that of a parallelogram, standing north and south. On the south side there is a broad apron or step, and from this another projection into the plain, about fifteen feet wide, which was probably intended as an ascent to the mound. This step or terrace has been used for a kitchen-garden by some monks of La Trappe, settled near this, and the top of the structure is sown in wheat. Nearly west was another of smaller size, and forty others were scattered about on the plain. Two were seen on the bluff at a distance of three miles. Some of the mounds are almost conical; as the sward had been burned, the earth was perfectly naked and I could trace with ease any unevenness of the surface, so as to discover whether it was artificial or accidental.

"I everywhere observed a great number of small elevations of earth, to the height of a few feet, at regular distances from each other, and which appeared to observe some order; near them I also observed pieces of flint and fragments of earthen vessels. I concluded that a populous city had once existed here, similar to those of Mexico, described by the first conquerors. The mounds were sites of temples or monuments to great men."

The largest of the Cahokia group, thus described by Brackenridge, was occupied for a time by a colony of monks of the order of La Trappe, who devoted themselves to silence, seclusion and a strictly vegetable diet. They soon succumbed to the malarial influences of the climate. Some died, and the remaining ones returned whence they came. The great mound, among the early settlers at this time, was known as the Monks' Mound. Subsequently, one of the white settlers bought the land, and, thinking to be above the malaria, built a larger residence on top of the structure, and made the well spoken of on the second terrace. The mounds now generally are known as the Cahokia Mounds, from the name of the creek on

which they are situated, as well as the name of a tribe of Indians found living on its banks on the advent of the whites.

As before remarked, we have surveyed this group, and find that the great pyramid is surrounded by seventy-two others of considerable size, within a distance of less than two miles from the great structure in the centre. The group, however, continues down the Cahokia to the bank of the Mississippi, and was probably connected with those across the river, now the site of St. Louis. Besides the larger ones of which we speak, and of which there are considerably more than a hundred, there was, as Brackenridge remarks, a great number of smaller ones, some of which are now almost obliterated in the cultivated fields. Immediately about the great structure the mounds are of large size, and are nearer together. The majority of these are square, and still retain their proportions; their sides, in some instances, being too steep to admit of ploughing. These are from twenty to fifty feet in height, and are utilized by the owners of the land as building-sites. Their size may be inferred from the fact that in several instances the farmer's residence, barns and all the out-buildings, together with the kitchen-garden, find ample room on the summits of some of these huge platforms and truncated pyramids. A few of the mounds in this group are oval; but we have observed only one that is conical.

Earthen mounds are common in Egypt; and there is hardly a doubt that their great stone-faced pyramids, like those of Mexico, were erected for religious purposes, and used as tombs for the great on rare occasions. The Egyptians, like most of the nations of the old world, began with solar worhip. So were the Mexicans, Peruvians, and our own Mound-Builders, worshippers of the sun. After many days' explorations and study amoung the Cahokia mounds, we believe that the evidence tends to prove this group of the greatest mounds on this continent, and perhaps in the world, had its origin in religious purposes, and quite possibly this was the Mecca, or grand central shrine of the Mound-Builders' empire. Upon the flat summit of the pyramid, one hundred feet above the plain, were their sanctuaries, probably two buildings like those of Mexico, glittering with barbaric splendor, and where could be seen from afar the smoke and flames of the eternal fire, their emblem of the sun. At the city of Mexico the Spaniards found the Aztecs holding their religious ceremonies on almost precisely such a structure, one hundred and twenty feet in height, with five terraces. On the flat sum-

mit of this pyramidal structure, which, like that of Cahokia, was divided into two parts, were two sanctuaries or shrines, in one of which the sacred fire burned. This great Mexican temple-mound was not, however, more than half the size of the Cahokia pyramid, being only three hundred feet square at the base. The square mounds about the base of the principal structure at Cahokia, some of which are larger than the base of the Mexican temple, were doubtless used for sacred purposes; and the adjoining mounds may have been for residences of the priests; for just such places surrounded the Aztec temple.

"Surrounding the great pyramid," says Clavigero, speaking of the Aztec temple, "were forty similar structures of smaller size, consecrated to separate divinities; one was called the House of Mirrors, and was covered with brilliant material, and was sacred to the god of light, the soul of the world, the spiritual sun; another to the god of water; another to the god of air;" and Gomera says that, "because the winds go round the heavens, they made this one circular."

Beside these were the dwellings of the priests, amounting to 5,000 according to Zarata, and of the attendants in the temple; also places for the instruction of the youth; and, if some are to be credited, places for the reception of strangers who came to visit the temple and see the glories of the court of Montezuma. "There were ponds and fountains, groves and gardens, in which flowers and sweet-smelling herbs were cultivated for use in the sacred rites and for the decoration of the temple,"

This is what the cruel, merciless Spaniards saw; and it were pardonable if their accounts were in glowing colors. Yet there is a general concurrence in the accounts of these early writers, among whom were Cortez, Bernal Diaz and others who saw what they describe. These accounts, which are in the main true, give us, not only some idea of the predominance of religious superstitions in Mexico, but also a good clew to the customs of our own Mound Builders, and the origin and the uses of the great structures on the Cahokia creek.

Adjoining the Cahokia pyramid on the southwest is a large pasture-field, of a hundred acres or more, that the white settlers have never plowed or put in cultivation, from the fact of its being so covered with mounds and ponds. It can be very plainly seen that these ponds are artificial. One is circular, with a pretty circu-

lar island in its centre; and as we look down upon it from a mound, we see again that ever present eye of the manitou, that has glared at us from the bluffs, from the caverns, and which is so common on our ancient pottery,—the oldest symbol in the world. Another pond is perfectly square, and the banks still so steep that the cattle reach the water only by indirect paths worn in the sides of the bank. In the driest seasons the water in the pond is several feet in depth, and contains a great many fishes. Curious to know if there was anything peculiar about them, we caught a number to add to our dinner. They were the little sunfishes so common in the Cahokia and the lakes of this region. What further interested us was a number of square earthen platforms arranged about the pond. These platforms were perhaps a hundred feet long and two or three feet in height. Although covered in places by a thick growth of bushes, their form could be easily seen. Brackenridge speaks of these in 1811, when, the grass of the prairie having been burned, he could see them plainly, and thought there was design in their arrangement. We think they may be the remains of gardens about the fish ponds, similar to those which the Spaniards saw about the great Aztec temple of Mexico.

The longest axis of the great Cakokia pyramid is nine hundred and ninety-eight feet; the shortest, seven hundred and twenty-one feet; and it covers sixteen acres, two roods and three perches of ground. The great pyramid of Cheops, in Egypt, is seven hundred and forty-six feet square. The Aztec temple-mound, of Mexico, was six hundred and eighty feet square. While the Cahokia pyramid is of much the same shape as the great temple-mound, and as those of Egypt, it is very much larger, and the surrounding mounds much larger and greater in number. We are led to believe that here on the bank of the Cahokia, in the centre of our Union, was the greatest congregation of religious structures ever known, not merely on this continent but in the world.

What a city! What a population there must have been at that time on this favored spot! This view is also strongly evidenced by the fact that this rich plain, more than seventy-five miles long, and five to twelve miles wide, is, as Brackenridge remarked three quarters of a century ago, "a veritible cemetery of the past, and full of the proofs of long occupation." Relics of the stone age protrude from the banks of every creek and ravine. In the rich fields opposite St. Louis, and for miles up the Cahokia creek, we have seen the market

gardener literally plow through human bones. The little labor with which enormous crops are grown here would excite the envy of the plodding planter on the banks of the Nile, patiently waiting for the sometimes tardy flood.

Some eminently travelled writer, after admiting that Nature stands revealed on a grand scale in America, complains that this new world is wanting in antiquities like those so full of interest in the old. This writer ought to come to Cahokia, and, standing on our Cheops, whose base covers more ground than any in Egypt, look down on the monuments of pre-historic America. When he asks who built them, the echoes of his inquiring voice may go reverberating among the temples below, but the answer will not return; for no one knows. The dead past has indeed buried its dead.

There is hardly an antiquity in any country that is not represented here, and it is the remarkable similarity of some of the more peculiar that puzzles us. We have been in the habit of attributing these evidences of similarity of thought to the instinctive impulses of savage and untutored minds. We might as well say here, however, that we now believe this will hold good only to a very limited extent. We say we are sometimes puzzled, because we may not always be sufficiently acquainted with the points of our analogies to know if the parallelism is true. This is illustrated in the fact that having taken from one of these Cahokia mounds a number of large sea-shells, found in such position and under such circumstances as to leave hardly a doubt in our mind that they were held sacred by the Mound-Builders, and used in their religious ceremonies, we were told by an intelligent and educated gentleman, who had spent several years in India in the employ of the British government, that these were held sacred by the Buddhists, because they were sinistral or reversed. In India the tradition is that Buddha was born from an ocean shell, with the opening on the left, and the whorls reversed. We are told that statues of Buddha are often seen in which the toes of his feet are represented by reversed shells, and that, from time immemorial, these shells, turning the wrong way, have been revered in Asia and wherever the Buddhist religion is known. It is at least singular that we have taken from our mounds so many sea-shells, not only pyrula, but large cassis and others, with the peculiarity of their whorls reversed.

It is also a singular fact—at least we have read it as such—that the great pyramids of Cahokia, like those of Egypt and Mexico,

should stand straight with the main points of the compass. We know that those of Cahokia stand thus. If this is true of the others, here is one of the many strong points that would seem to prove that our later Indians are not descended from the Mound-Builders. No matter what else the Indians may have forgotten, or what of history may have passed from them, they certainly would have retained, if once they had known, the points of the compass. Had their ancestors known the North Star, they would know it to-day. We have no information tending to show that our Indians had any knowledge of this kind. In the day-time they could travel by the sun, but at night the sky was a blank to them, and they had no knowledge of the stars. A sure guide in the heavens at night would have been such an invaluable acquisition to the Indian in the wilderness, that it would be indeed strange if, having once possessed it, it should have passed entirely from his remembrance.

CHAPTER XXII.

THE ORIGIN, MIGRATION AND FATE OF THE MOUND-BUILDERS.—WERE THEY AN INDIGENOUS PEOPLE.—THE ORIGIN OF THE RED INDIANS.—THEIR CONTACT WITH THE MOUND-BUILDERS.—THE ORIGIN OF THE SYMBOLIC EMBLEMS, ETC.—WHAT BECAME OF THE MOUND-BUILDERS?—DID SOME EPIDEMIC OR PLAGUE ATTACK THEM?—WERE SOME DRIVEN INTO MEXICO?—DID THE INDIANS HAVE A RELIGION?—THE PUEBLOS AND AZTECS HAVE NOT FORGOTTEN THEIR RELIGION THOUGH CONTROLED BY PRIESTS FOR TWO HUNDRED YEARS.—THE AZTECS AND PUEBLOS READY TO GO BACK TO SUN-WORSHIP.—HUMBOLDT'S OPINION OF THE ORIGIN OF THE AZTECS AND MOUND-BUILDERS.—THE AZTECS' TRADITIONS OF THEIR MIGRATIONS.—WERE THEY ONCE IN THE MISSISSIPPI VALLEY?—THE AZTECS' DATES AND CALENDAR.—MORE THAN ONE INFLUX OF IMMIGRANTS TO AMERICA.—THE GEOLOGICAL HISTORY OF THE CONTINENT WOULD INDICATE INDIGENOUS RACES.—THE TRADITIONS OF VARIOUS RACES AS TO THEIR ORIGIN.—THE ORIGIN OF THE EGYPTIANS ENVELOPED IN OBSCURITY.—MOST PEOPLE POINT TO THE NORTH FOR THEIR ORIGIN.—THE REGION OF THE NORTH POLE STILL UNKNOWN TO US.—SUMMING UP OF THE EVIDINCE.—MIGRATIONS NOT ALL BY LAND.—THE USELESSNESS OF ATTEMPTING TO TRACE NATIONAL AFFINITIES BY LANGUAGE.—THE ORIGIN OF MOST OF THE PROMINENT OLD LANGUAGES UNKNOWN.—WONDERFUL CHANGES IN EUROPEAN LANGUAGES.—LANGUAGE IN OTHER COUNTRIES.—EACH INDIAN TRIBE WITH A DIFFERENT LANGUAGE.—THE PICTOGRAPHS, SYMBOLS AND EMBLEMATIC DEVICES THE ONLY CLEW WE HAVE.

IT is proper, perhaps, that we end our investigations of the subject by giving some suggestions relating to the origin, migrations and the ultimate fate of the race, or races, whose relics and monuments we have been considering in the preceding pages.

Some have argued that the people found by Columbus, on the discovery of this continent, were indigenous, or native to the country, like the animals, the trees and plants. And it does seem natural to suppose that this great continent, so richly endowed with a fauna and flora peculiarly its own, should have had from its own sources its races of men, and not been dependent upon another and widely separated portion of the world for its people.

Some have argued that the continents were not always so separated.

One nation after another, European and Asiatic, has been put forward as entitled to the honor of having been the first in the field with its peopling or civilizing colonies, prior to whose coming, it was assumed, this continent must have been a desolate waste, without inhabitants.

Our own opinion is, based upon our investigations in the field among the mounds, that this continent was originally inhabited by savage tribes, of whom our red Indians are the descendants, changed very materially however, by coming in contact with other peoples who came from the old world. These "other peoples," from their manners and customs, and especially as shown in preceding pages of this work, in their symbolic devices, seem to have either come from Asia, or been connected with some of the Asiatic races known to us. In our opinion it is simply unreasonable to suppose that the many peculiar customs and symbolic devices which we have shown to be so very like those of some nations in Asia, Africa and Europe, are simply the result of accident. Whatever the origin of our later Indians may have been, it is pretty well established that the builders of the great mounds and earth-works of the Mississippi Valley were not native to this country. They were immigrants from other shores, bringing their peculiar customs along with them. In the course of time, in the Mississippi Valley, they flourished and became a numerous and well established people, whose public works, from



Agricultural Implement, 17 inches long.

the grandeur and extent of their ruins, are as much a wonder to-day as the pyramids and ruins along the Nile. They had governments, and a religious establishment, and depended upon agriculture for their subsistence. But something happened; some grand holocaust; perhaps a plague or epidemic; and, in a weakened and helpless condition, they fell a prey to neighboring barbarians, who absorbed a part and drove the remainder away to be finally absorbed among other, perhaps southern, wild tribes, until the identity of the nation was wholly lost. Beside the ruins of the places where they dwelt, in the valley of our great river, nothing remains of them but faint traces of some of their customs, seen here and there among the savages, like relics protruding faintly from a wave-washed shore, only a reminder of the people to whom they once belonged.

It is quite probable that a small part of the Mound-Builders were driven into Mexico, and becoming amalgamated with another people, there began anew the struggle for existence, and in course of time lived over again some of their better days in the Mississippi Valley. We say they were driven into Mexico, for this is indicated in several ways. Besides, it is to be inferred that no people, having once gained a footing and established themselves in this rich valley, would ever voluntarily leave the rich fields in which were their great monuments, erected by long years of toil. They were driven out, and their homes became the sites of forests,—with here and there the huge earthen temples, silent and half hidden beneath tangled vines,—where the savage red man lurked, seeking for a wily foe as savage as he. What cared the red man for mounds, if he knew them not, neither made them? No tradition ever told of such a place as the burial-place of his forefathers; nor did these great embankments ever encircle a home of his; nor did he ever have a home, but the one he could fold, like the Arab, and "steal away."

It is a well-known fact among our archæologists and ethnologists that a greater part of the Indian tribes of the Mississippi Valley,—in fact most of those known in the United States,—actually had no system of religion. Some of the southern Indians practiced the worship of the sun, according to Adair and a few other early travellers who saw them before they were destroyed; and the Pueblo Indians of the far west had a religion somewhat like that of the Aztecs. But the Indians found by the whites occupying the ancient Mound-Builders' domain, if they ever had a religion, had not only ceased to practice it, but had forgotten it. It did not even remain in their traditions. This is very singular, since these customs are held with such tenacity by nations known to have inherited a religious belief. The Pueblo Indians of New Mexico and the West have been under the control and direction of Catholic priests for over two hundred years, who have been zealous to use every means to eradicate all pagan rites and beliefs, yet it is said that to-day their old belief in, and love of, their ancient religion is so strong, that, with opportunity, it is liable to break out any day; in fact their ancient rites are known to be still practiced in secret among the Zunis and others of the Pueblo Indians.

A recent writer from Mexico says the same thing of the Aztecs. In spite of the Catholic priests, they have secret places where the

sacred fire is kept burning; while they are waiting and hoping for some savior Montezuma to come and once more establish the Aztec kingdom.

Humboldt, whose opinions have commanded universal respect, and who, in his extended travels in this country at an early day, when the antiquities were in good preservation, had rare opportunities to study the traces of ancient races in America, says,[1] "Did the nations of the Mexican race, in their migrations to the south, send colonies toward the east, or do the monuments of the United States pertain to the indigenous nations? Perhaps we must admit in North America, as in the ancient world, the similtaneous existence of several centres of civilization, of which mutual relations are not known in history. In further speaking of these races, he says: "The very civilized nations of New Spain, the Toltecs, the Chichimecs, and the Aztecs, pretended to have issued successively, from the sixth to the twelfth century, from three neighboring countries to the north. These nations spoke the same language, they had the same cosmogonic fables, the same propensity for sacerdotal congregations, the same hieroglyphic paintings, the same divisions of time, the same taste for noting and registering everything. The names given by them to the towns built in Mexico were said to be the names of the towns they had abandoned in their ancient country. The civilization on the Mexican table-land was regarded by the inhabitants themselves as the copy of something which had existed elsewhere, as the reflection of the primitive civilization of Aztlan. Where, it may be asked, must be placed that parent-land of the colonies of Anahuac, which during five centuries sends nations toward the south, who understand each other without difficulty and recognize each other as relations? Asia, where it is nearest to America, is a barbarous country; and in supposing they came from Southern Asia the migration would have been so long, and so easily intercepted on the way, that it would indeed have been wonderful had they retained a remembrance of the institutions of the mother-country with such force and clearness. Yet the national characteristics of the Mexicans point by analogy to Oriental Asia, while the lively remembrances of which we have spoken, and the peculiar physiognomy which Mexican civilization presents in so many other respects, seem to indicate the existence of

[1] "Personal Narrative" vol. vi., p. 322.

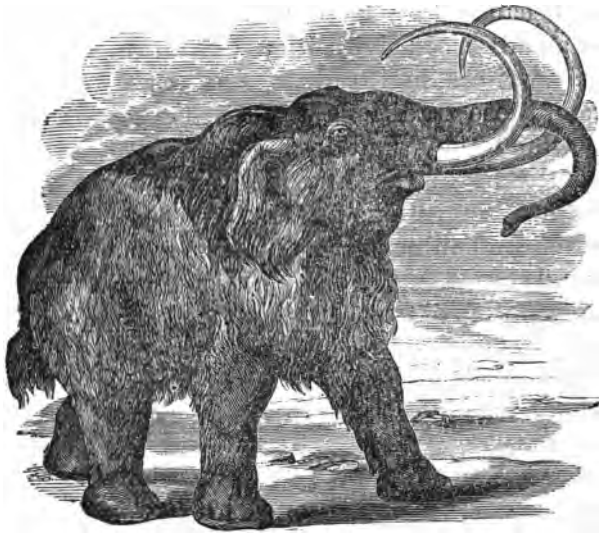
an empire in the North of America, between the thirty-sixth and forty-second degrees of latitude. We cannot reflect on the military monuments of the United States without recollecting the first country of the civilized nations of Mexico."

These are some of the results of the impressions received by Humboldt after viewing the antiquities of America. The manners, customs and religion of the aborigines, more especially of the more civilized nations of Mexico, seemed to point to their Asiatic origin. The Mexican traditions all point to the north as the source from whence they came; and Humboldt thought their line of migration, of which they seem to have a history, was through the Mississippi Valley. Those who have read our description of the Cahokia mounds, with the great pyramid in the centre of the group, and noted the great resemblance to the Mexican temple-mounds, will see at once that there is reason to suppose that just such a people dwelt for a long time in the valley of the Mississippi. But that which has been a very great obstacle in the path of all these investigations is the fact that there are many different kinds of mounds, of different ages, and made by people differing widely in their customs and cultivation. There are hundreds of mounds much older than those on the Cahokia, and there are many much more recent. So much of history mixed up in the various mounds, and apparently referring to different peoples, bothered Humboldt; and every student of archæology since has had the same difficulty to contend with.

The Aztecs kept a sort of history, and dated their occupation of Mexico no farther back than about 700 years. When they arrived in Mexico, however, the Toltecs and Chichimecs, to whom they were apparently related, had occupied the country a considerable time before. According to Clavigero, and some Spanish writers, the Toltecs had been in Mexico perhaps a hundred years before the Aztecs arrived. And Mexico had many mounds and other ruins when they found it.

The people who built the great Cahokia mounds, and left so many monuments, symbolic devices, and other evidences of Eastern origin, without doubt found the valley of the Mississippi already occupied by more than one nation; and some of these were themselves immigrants from foreign shores, who had built mounds upon which great forest trees were growing. This is quite evident to one who has made this question a life-study. Immigrants have followed immigrants; and it is indeed quite probable that the first strangers to

arrive in the Mississippi Valley saw it peopled with indigenous inhabitants, who began life on the continent in the same way as did the trees, plants and animals. No naturalist would venture to ask how this continent's peculiar flora or fauna came. They came with the continent; a part of creation. And amidst this grand display of animated life; amid the vegetation and the animals—for the animals came last—there was, quite without a doubt, man. It was a finished continent, which necessarily includes vegetation and animal life; and the animal life of a continent, however exuberant, would be incomplete without the higher animal, man. The geological history of the life of the continent shows that America was not in any particular behind other continents in the formation of its animal life. We doubt if there is an animal in the world, fossil or living, but that we have its representation in the fossils from the rocks of the United States. We have even more, for some of the common domestic animals of the Old World are so rarely shown as fossils, that it



Elephas Primigeneus.

has sometimes been doubted if it was their orignal home. Thus, in the United States, there have been found about forty species of horse fossil, the earliest no larger than a rabbit; fifteen species of camel, and all the animals of tropical countries. We have in our own collection, obtained from the loess on the banks of the Mississippi, the perfect teeth of no less than three species of elephant beside the mastodon. And although we have found no fossil man, the

fauna of the continent was on such a grand and magnificent scale that to believe it was still finished and complete, in the absence of Man, is almost sacrilegeous.

There is no doubt man appeared as soon as the continent was fitted for him to live upon it, many ages ago. But there are certainly few men so foolish as to even suppose that the primitive men of this or any other continent commenced with the intellect and reasoning powers of a Baron Von Humbolt. The primitive men of America were without doubt, like our own forefathers, in the beginning savages.

The question before us, however, is not exactly as to how this continent became originally peopled, but more as to how civilization commenced and was disseminated. If we knew this we would have the history of our Mound-Builders. It is a singular fact that most nations have traditions of migrations; even the Egyptians, who have a record of their own civilization longer than that of any other people, perhaps; because they have monuments four thousand years old that show an advanced civilization. Even the Egyptians, according to the early writers, had traditions of migrations; and, singular as it may seem, these traditions would seem to point to some other people from whom they had learned. According to the story of Solon, as given by Plato, the Egyptian priests had preserved these traditions of their migrations from another country. Wilkinson,[1] who has studied this subject thoroughly, says: "The origin of the Egyptians is enveloped in the same obscurity as most people; but they were undoubtedly from Asia, as is proved by the form of their skulls." But even on the Nile there was an aboriginal population to be dispossessed by the Egyptians; and, according to Wilkinson and others, beneath the foundations of the ruins on the Nile are still to be found the rude stone implements of the people who lived there before the Egyptians came.

It is a little singular that the traditions of most people point to the North as the direction of their origin; and this is still more strange since it is held by people in the far North. When that intrepid voyager, who made the Northwest passage through the Arctic sea, passed the fearful winter in the frozen region far above Nova Zembla, his winter quarters were near a village of Arctic natives, called Innuits. Among these people, in this inhospitable land, Norden-

1 "Ancient Egyptians," vol. 1, p. 302.

feldt and his ship's crew spent the long winter. Among other things, he was surprised to learn that the traditions of the natives all pointed to their origin in the still farther North, indicating that they had emigrated from the North and dispossessed some other people, whom they drove south. They even pointed out the ruins of the abodes of the people whom they found in possession of this inhospitable region.

The region of the North Pole is still unknown to us; but it is a well-known fact that, as far north as our most intrepid explorers have gone into those frozen regions, there are inhabitants who eke out an existence there, as is shown by the narratives of Dr. Kane and others. It is indeed remarkable that the inhabitants of this frigid zone seem to be coming from the north, instead of receding before some foe from the south. Much of the interest in these apparently useless explorations into the Arctic Circle is due to the possible explanation of some of the most singular facts in the question of the origin of races.

To sum up the main part of the evidence, it would seem to be proven that this continent, being originally inhabited by savages, has been invaded from time to time, for ages, by inhabitants from the Old World. Some, it may be, came by land; others by the sea, involuntarily it may have been, by being thrown out of reckoning by storms, and drifting on to the shore of an unknown continent. From the days of the Phœnicians, or even before, this might have happened. A few people it may have been; but these, by superior intelligence, having once obtained a foot-hold among the native inhabitants, finally left the impress of their presence in the mounds and other structures, where we find tokens of the customs and religion of the country from whence they came.

The long migration by land, coming from Asia by the way of Behring's Strait, is a difficult one to realize; but assuming this as possible even now, it is quite evident that the very last of these movements, according to the Mexican history (which is the only one seeming to have any sort of authenticity in the way of dates), must have been a thousand years ago. Although the time of this migration, as given by the Mexicans, is tolerably well established, the direction and route by which they travelled into Mexico (except perhaps some evidence in the Mississippi Valley, especially on the Cahokia,) is not yet made clear.

It is quite probable that some, if not all, of these foreigners

reached the shores of this continent by the way of the sea, and that America is indebted to the winds and waves of the ocean for their presence. Familes may have been migrating to some known points, and been blown out of their reckoning, shipwrecked and driven upon an unknown shore; and the horrors of the catastrophe not only prevented them from attempting an escape or return by water, but became in after years to them a sort of deluge; there being a legend of this kind among some Indian tribes. Even the Aztecs held a similar tradition. Quite a number of Indian tribes had a tradition faintly reciting the escape of their forefathers from some great catastrophe, in which a great flood was the prime element of destruction.

As before remarked, much valuable time and talent, together with considerable sums of money, have been spent to no purpose in endeavoring to trace the origin of our Indians through their myths and legends, many of which have been borrowed by contact with settlers since the discovery of America. Also in endeavoring to trace, through the languages of the various Indian tribes, some affinity to the languages of various nations of the old world. In our opinion this is not only a useless task, but may lead to many errors, and most undoubtedly has done so. Language, even among civilized people, has no very great stability, and cannot be used as a guide-mark by which to sail out of sight of land in an unknown sea, so to speak.

Linguists to-day do not know any original language. All languages seem to be made up from fragments of others.[1] "Even Latin itself, as well as Greek, Sanscrit, Zend, Lithunian, Sclavonic, Gothic and Armenian, are varieties of a common and more ancient type, and no one of them could have been the original from which the others could have been borrowed. They all have a mutual resemblance to a more ancient language, the Aryan, and those who spoke this unknown parent speech, of which so many ancient tongues were offshoots, must have migrated at a remote era from widely separate regions of the old world, such as North Asia, Europe and India."[2]

Races change much more slowly than language. Some believe that there are from four to six thousand living languages. It is believed by many that the languages of modern Europe are not

1 Lyell's "Antiquity of Man," p. 454.
2 Max Muller, "Comparative Mythology."

more than a thousand years old. A popular English scholar has said that probably no one, who has not given himself up especially to the study of Anglo-Saxon, can interpret the documents in which the chronicles and laws of England were written in the days of King Alfred; so that we may be sure that none of the English of the nineteenth century could converse with the subjects of Alfred if the latter could be restored to life. [1]

They who now speak German, if brought into contact with their Teutonic ancestors of the ninth century, would be quite unable to converse with them, and in like manner, the subjects of Charlemagne could not have exchanged ideas with the Goths of Alaric's army, or with the soldiers of Arminius in the days of Augustus Cæsar. So rapid indeed has been the change in Germany, that the epic poem called the Nibelungen Lied, so popular and only seven centuries old, can not now be enjoyed, except by the erudite.

Even in Rome, where there had been no permanent intrusion of foreigners, such as the Lombard settlers of German origin on the plains of the Po, the common people of the year 1,000 spoke quite a distinct language from that of their Roman ancestors, or their Italian descendants; as is shown by the celebrated chronicle of the monk Benedict, written in such barbarous Latin, and such strange grammatical forms, that it requires a profoundly skilled linguist to decipher it. Strabo informs us that in the limited area of the Caucasus alone there were spoken at least seventy languages.

In France the Chevalier Pertz has printed a treaty of peace a thousand years old, between Charles the Bald and King Louis of Germany, dated A. D. 841, in which the German King takes an oath in what was the French tongue of that day, while the French king swears in the German of the same era; and neither of these oaths would now convey a distinct meaning to any but the most learned in those two countries. The documents would have to be translated. [2]

A German colony in Pennsylvania was cut off from frequent communication with Europe for a quarter of a century, by the wars of the French Revolution, between 1792 and 1815; and when the Prince Bernhard travelled among them, a few years after the peace, he found the peasants speaking as they had done in Germany the

1 Lyell.
2 Lyell's "Antiquity of Man," p. 466.

century before, retaining a dialect which at home had became obsolete.

Any one who has heard the Irish and Scotch, and the Welsh, speak English in America, so as to be scarcely understood at all by an Englishman, can imagine how a dialect might, if isolated, soon become a language totally unlike the original. In fact, at this day, in Scotland, Ireland and even England, an American can hardly understand the native dialects, and his experience there is very similar to that undergone in any other foreign country with an unknown language.

It is easy to understand why each Indian tribe had a different dialect, and, if separated for some years, would have a different language. We have ourselves seen white men in the Rocky Mountains, who, although their parents were Americans, and they had first learned the English language, having spent the main part of their lives among the Indians and French traders, spoke a patois of their own that was almost wholly unintelligible to us. They had a language of their own. Old trappers on the frontier soon acquire a dialect of their own, intermingled with signs and Indian words. Our own knowledge of the Indians has convinced us that no tribe would long sustain a language without interpolations and changes; and we are not at all surprised that each tribe had a different one. They have no literature, no books. Some leading orator, however uncouth in words and manners, would be followed for a while, until another was heard. There is absolutely no guide. The one with the most impressive manner would convey the meaning quickest.

So we have concluded nothing can be learned, bearing on the origin of the Indian, from his language. We may say the same of his myths and legends. But from the ancient pictographs, symbolic devices, emblems and rude signs of the Mound-Builders we have one feeble clue by which at this late date to trace something of their origin. In our opinion it is an important question; for it has an important bearing on the history of all mankind. To aid in elucidating it we have worked long and diligently, much of the time without the advantages of a guide; and in these pages we have endeavored to give the reader the results of our investigations; which we think will include some things not generally known on the subject. If we have succeeded in awakening his interest we are not without our reward.

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